



## Technical Coordinating Committee Meeting

Monday, April 24, 2023  
1:00 pm  
Location: Blueprint Grand Conference Room

Facilitator: Autumn Calder

### Agenda

<b>I.</b>	<b>AGENDA MODIFICATIONS</b>	<b>Page</b>
<b>II.</b>	<b>CONSENT</b>	
1.	November 14, 2022 Blueprint Intergovernmental Agency Technical Coordinating Committee Meeting Minutes	<b>1</b>
<b>III.</b>	<b>GENERAL BUSINESS/PRESENTATIONS</b>	
2.	Review of the Orange-Meridian Placemaking Stormwater Improvement Concepts	<b>4</b>
3.	Presentation on the Northeast Park (presentation only)	
<b>IV.</b>	<b>CITIZENS TO BE HEARD</b>	
	Citizens desiring to speak must fill out a Speaker Request Form. The Chair reserves the right to limit the number of speakers or time allotted to each speaker. All comments received will be part of the record.	

### **NEXT TCC MEETING: Monday, August 28, 2023 at 1:00 PM**

In accordance with the Americans with Disabilities Act and Section 286.26, Florida Statutes, persons needing a special accommodation to participate in this meeting should contact Shannon Berigan, Public Information Officer, 315 South Calhoun Street, Suite 450, Tallahassee, Florida, 32301, at least 48 hours prior to the meeting. Telephone: 850-219-1060; or 1-800-955-8770 (Voice) or 711 via Florida Relay Service.

# Blueprint Intergovernmental Agency Technical Coordinating Committee Meeting Minutes

**Date:** November 14, 2022  
**To:** Technical Coordinating Committee  
**From:** Benjamin H. Pingree, PLACE Director  
**Subject:** Presentation of the Discussion of the Capital Cascade Trail Segment Four Concept (CCTS4)

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## Committee Members present:

Ken Morris	Ben Pingree
Wayne Tedder	Brent Pell
Artie White	Bill Adams
Autumn Calder	Nawal Ezzagaghi
Chris Muehlemann	
Jodie Cahoon	

*\*substitute*

## I. AGENDA MODIFICATIONS

There were no agenda modifications.

## II. CONSENT

The TCC is a non-voting committee serving to provide professional advice and technical expertise on Blueprint Intergovernmental Agency projects.

Blueprint Director, Autumn Calder began the meeting by asking if the committee had any objections or questions to the last TCC meeting minutes from 8/29/22 and there were no objections or questions.

**There were no objections to the presented Consent items or staff recommendations.**

## III. PRESENTATIONS

Presentation of the Discussion of the Capital Cascade Trail Segment Four (CCT4) Concept

Blueprint Project Manager, Abe Prado started the presentation going over the stormwater component of this project. He also gave additional updates on this project unrelated to stormwater, including proposed new public spaces.

Robert George of George and Associates then briefly discussed the White Paper recommendations for the project. He mentioned that the current nutrients in Munson Slough are below state requirements.

Ms. Do, the project consultant team hydraulic engineer, then discussed the CCT4 Watershed Model development. She indicated that a new stormwater model was created to account for the current conditions from the west ditch, the east ditch, and the central ditch to evaluate for downstream impact(s). She went over the three neighborhoods that are currently flood prone (McPherson, Liberty Park, and Callen). She then gave the consultant team proposed solution & recommendation to improve/reduce the flooding in the area. Some of the solutions were providing more capacity via pipe improvements, improving the ditches, putting up a Gabion wall, making slide slopes at a 2 to 1 ratio instead of a 1 to 1 ratio, and improving the timing of the hydraulic system.

For the water quality improvements, she gave recommendations such as constructing a retention pond to provide treatment, a recharge wetland feature, and pumping of the baseflow to support a new community feature.

Abe then went over the next steps in this project with the projected date of construction of the project around winter 2024 and spring 2025.

Autumn then asked for more information on the flood improvement. Blueprint Design and Construction Manager, Dan Scheer said that he wanted to mention that the project team would need a drainage easement at Liberty Park. Abe agreed along with mentioning an additional improvement in this area. Mr. George said the average height of the proposed gabion wall is 13 feet with a seven foot width at the bottom. Mr. George indicated that the increased velocity in the system will help move sediment is a benefit.

Manager of City Stormwater, Jodie Cahoon asked about consolidating and overlapping stormwater models. Ms. Do said that she used updated models, Jodie suggested doing another verification quantity model to see if the returns are truly what we expect.

As it relates to water quality, Autumn asked for more information on the pump. Ms. Do replied that the pump is needed for the wetland feature. Mr. George further explained in detail about the pump function.

Assistant City Manager, Wayne Tedder requested the project team reach out to Parks and Recreation about the green space. Autumn responded in the affirmative indicating that Blueprint had and plan to turn it into a park.

Autumn asked the committee if they do not want the pump, what would be the reason, and Jodie responded by saying the pumps are hard to maintain.

Jodie said he wants to look at the quantity model and go through it whenever George & Associates are ready to release it. Jodie also mentioned looking at the design model and comprehensive two-flow model.

Autumn adjourned the meeting with no further business to discuss.

1. **CITIZENS TO BE HEARD**

There were no citizens to be heard.

2. **ADJOURN**

**The meeting adjourned by consensus at 1:46pm.**

**Next meeting is set for February 20, 2023 at 1pm.**



# Blueprint Intergovernmental Agency Technical Coordinating Committee Agenda Item #2

April 24, 2023

**Title:** Review of the Orange-Meridian Placemaking Stormwater Improvement Concepts

**Category:** General Business

**Intergovernmental Management Committee:** Vincent S. Long, Leon County Administrator  
Reese Goad, City of Tallahassee Manager

**Contact:** Benjamin H. Pingree, Director, Department of PLACE  
Autumn Calder, Director, Blueprint  
Daniel Scheer, Design and Construction Manager, Blueprint  
Junious Brown, Project Manager, Blueprint

## STATEMENT OF ISSUE:

This agenda item presents an analysis of stormwater improvement concepts for the East Drainage Ditch, a component of the Orange-Meridian Placemaking Project. This item is presented to the TCC to receive its collective professional input and expertise.

## FISCAL IMPACT:

The contemplated stormwater improvements will have a fiscal impact. The estimated cost to design and construct the improvements is \$4.5M. However, the project can be funded within the current project allocations. In addition, the project was recently awarded the Resilient Florida Grant for fiscal year 2022-23 by the Florida Department of Environmental Protection in the amount of \$572,052.00.

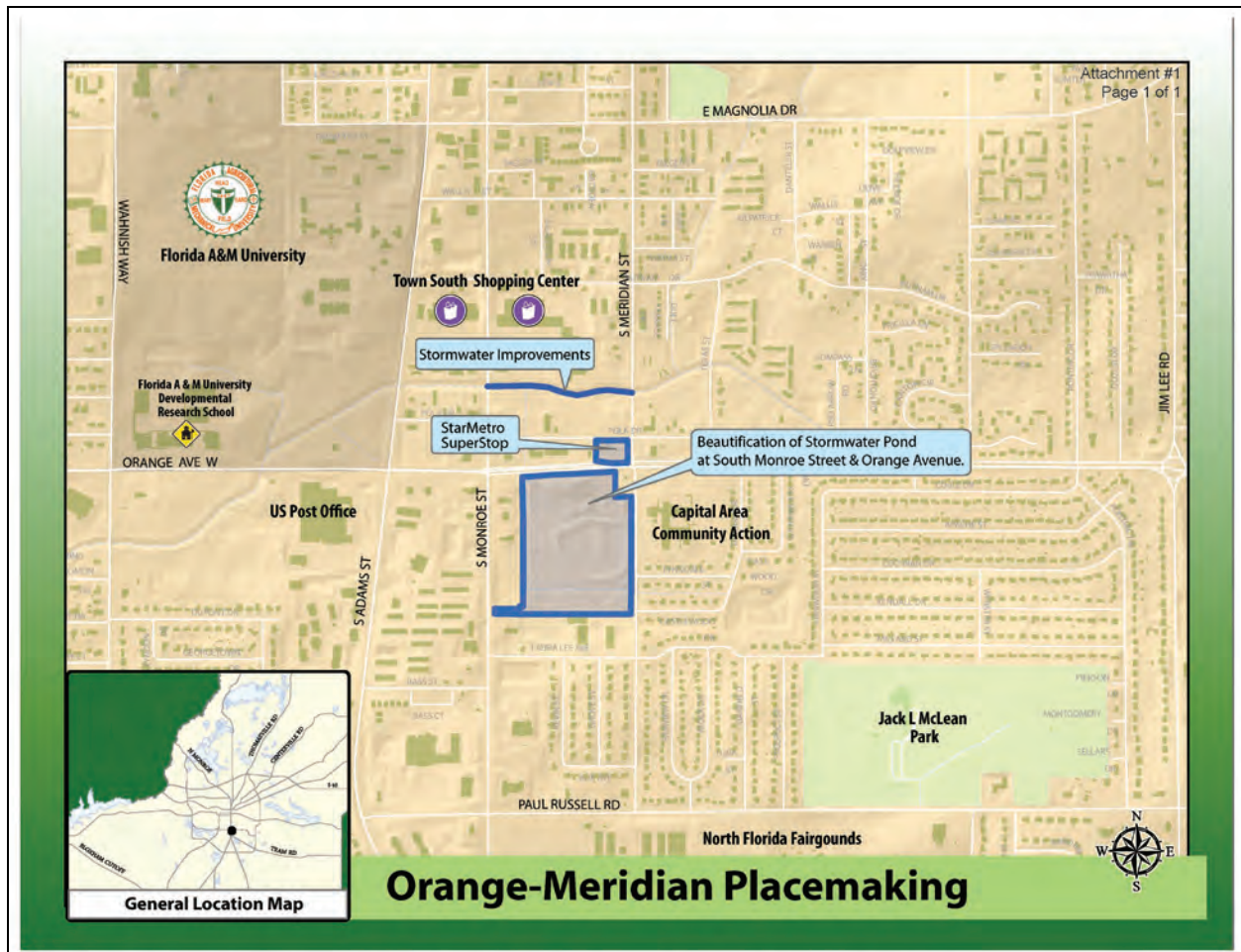
## SUPPLEMENTAL INFORMATION:

### BACKGROUND

The Orange/Meridian Placemaking Project is one of the 32 Blueprint Infrastructure projects. It is tied with the Market District Placemaking project as the top-ranked Community Enhancement, Connectivity, and Quality of life (CCQ) project, based on the prioritization of the CCQ projects approved by the IA Board at the September 17, 2017 meeting. The sales tax project, as approved, includes the construction of 1) Orange Avenue

Community Park, 2) stormwater improvements along the East Drainage Ditch, and 3) bus stop enhancements specifically through a \$1M contribution to StarMetro for the Southside Transit Center. The project was fully funded in Fiscal Year 2023 at \$8.7 million. A map of the project is shown in Figure #1.

Figure 1: Orange/Meridian Placemaking Project Area



In FY 2019, the IA Board approved funding in the amount of \$1 million to advance the planning and design work for the Orange Avenue Community Park and East Drainage Ditch. This work is underway with the development of the East Drainage Ditch Concept, as presented in this agenda item.

Upon selection of the East Drainage Ditch Concept, discussed herein, Blueprint will proceed with the final design services, which are anticipated to conclude at the end of 2025.

## EAST DRAINAGE DITCH CONCEPTS

The East Drainage Ditch is a major urban stormwater conveyance system with a 2,500+ acre contributing watershed at South Monroe Street. The East Ditch segment included in the Placemaking project floods during heavy rain events, and, as a result, the surrounding

properties are encumbered by a Federal Emergency Management Agency (FEMA) regulated floodway/floodplain designation.

Eleven conceptual improvements were studied by the project team, as outlined in Attachment #3, to address the ditch improvements between S. Meridian Street and S. Monroe Street. The project team analyzed the possible improvements for overall project goals such as floodplain reduction, increased safety and aesthetics, connectivity, consideration for maintenance and operation, and anticipated cost to construct.

The two concepts included for consideration in this agenda item best balance the project goals. Both concepts involve armoring components of the ditch with gabion baskets, grading a low-rise slope on the south bank in order to minimize erosion, and providing a trail facility and parking adjacent to the East Drainage Ditch. The concepts are presented in Figures 2 and 3, and in Attachments #1 and #2.

Both concepts provides provide the following benefits:

1. Increasing stormwater storage volume and the potential to provide benefits both upstream and downstream of the project limits.
2. Improving safety by managing current and future floodplain impacts to adjacent properties.
3. Reducing vulnerability of the ditch slopes and improving resiliency of nearby roadways and structures.
4. Enhancing aesthetics of the properties along the ditch and contributing to the sense of place in the Orange-Meridian Placemaking area.
5. Increasing connectivity to neighborhood businesses and residences as well as accommodating safe access to the future Star Metro Southside Transit Center and Orange-Meridian Park.

Figure 2: East Drainage Ditch Concept 1





Figure 3: East Drainage Ditch Concept 2



While both concepts achieve the project goals, there are distinct differences that are outlined below.

Concept 1:

- Fully ‘armors’ north bank and ditch bottom reducing sediment erosion.
- Maintains the hydrology of a typical ‘ditch’ that has higher flow velocities reducing debris collection along the banks and sediment collection in the system.
- Minimizes ditch bank lengths resulting in lowest maintenance cost.

Concept 2:

- Creates an in-line pond providing increased stormwater storage capacity.
- Reduces flow velocities that may result in debris accumulation along the ditch banks.
- Increases ditch bank lengths resulting in increased maintenance costs.

The proposed concepts are expected to meet permitting requirements with the project team implementing a FEMA map revision process known as a Letter of Map Revision (LOMR). A LOMR is a letter from FEMA officially revising the current National Flood Insurance Program (NFIP) map to show changes to floodplains, regulatory floodways, or flood elevations.

Both concepts proposed achieve similar goals and facilitate other community benefits through future improvements to the East Ditch such as the Adams Street culverts. As a result of the FEMA map revision, future County, City, or state projects will now be more feasible to implement. This project creates the conditions to realize impactful future improvements in the East Drain age Ditch system and does not prevent or hinder future improvements to the East Drainage Ditch.

Improvements to the East Ditch necessitated the acquisition of right-of-way. Blueprint acquired 19 parcels from a willing seller, all owned by the same entity, that approached Blueprint with a desire to sell. One parcel has a small commercial structure on it, however, only a vacant portion of the commercial parcel was acquired leaving the commercial activity intact. The parcels purchased are unimproved and substantially within the floodway or floodplain.

Both options are expected to have similar costs to design and construct. Cost estimates for the concept improvements are presented in Table 1. The total cost of the East Drainage Ditch improvements are estimated to be \$4.5M.

Table 2 – East Drainage Ditch Concept Construction Cost Estimates

Table 1 – East Drainage Ditch Concept Construction Cost Estimates	
Hydraulic Modeling, Design, & Permitting	\$500,000
Construction (site work, landscaping, etc.)	\$3.6M
CEI and Contingency	\$400,000
<b>Total Estimate</b>	<b>\$4.5M</b>

## UPDATE ON OTHER ORANGE/MERIDIAN PROJECT COMPONENTS

### *Orange Avenue Community Park Improvements*

Final plans are complete, and all permit submittals are currently under review for approval for the Orange Avenue Community Park. Upon receipt of the required permits, Blueprint will advertise, negotiate, and award construction services for the Orange Avenue Community Park, as authorized by the Blueprint Intergovernmental Agency Board (IA Board), at the September 27, 2021 IA Board Meeting. Construction activities are anticipated to begin in summer of 2023 with a nine to twelve month project duration for the Orange Avenue Community Park.

### *Southside Transit Center*

The StarMetro Southside Transit Center project team is currently working on the final design of the project. Community engagements occurred in 2022 where StarMetro hosted various events, attend neighborhood association meetings, and conducted online polls and on-the-bus surveys. The Transit Center is anticipated to begin construction in early 2024. The Blueprint project team is working in conjunction with City of Tallahassee efforts at the Southside Transit Center site for stormwater, design consistency, and other related infrastructure needs within the larger placemaking project area.

## NEXT STEPS

Upon final selection of an East Drainage Ditch concept, this phase of the Orange/Meridian Placemaking project will proceed through design and permitting. In early 2025, Blueprint will seek IA Board approval of construction.

April 2023:	Present the East Drainage Ditch Concepts for TCC review, begin LOMR process to enable permitting of the project.
Fall 2024:	Final design for the East Drainage Ditch and submit for final permitting.
Spring 2025:	Request authorization to procure construction from the IA Board. If authorized, issue an Invitation for Bid for construction services for the East Drainage Ditch.
Summer 2025:	Construct the East Drainage Ditch.
Spring 2026:	Conclude construction on the East Drainage Ditch improvements.

*Attachments:*

1. East Drainage Ditch Concept 1 Rendering
2. East Drainage Ditch Concept 2 Rendering
3. Analysis Summary of Conceptual Improvements



# CONCEPT 1: GABION ON NORTH SIDE





# CONCEPT 2: EXCAVATION CONCEPT WITH WEIR



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# ORANGE-MERIDIAN PLACEMAKING

TCC East Ditch Update, April 24, 2023

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# Orange - Meridian Placemaking - Background

1. Orange - Meridian Community Park  
- current status: Permitting
2. East Drainage Ditch Stormwater Improvements  
- current status: Pre-Engineering
3. StarMetro Contribution South Side Transit Center  
- current status: Design



# East Drainage Stormwater Improvements

## Goals:

- Floodplain reproduction
- Increased safety & aesthetics
- Connectivity
- Consideration of maintenance & operation
- 11 alternatives studied, two alternatives are best fit
- Seeking TCC input on final alternative to move into design.



# East Drainage Ditch - Summary of Findings

1. The Effective FEMA FIRM should be updated to reflect Existing Conditions and must be done to move project forward.
2. Blueprint East Drainage Ditch Project Options
  - Alternate 3.1 could potentially be refined to show a “No-Rise” for the 100-year event compared to the Existing Conditions.
  - Alternate 4 shows a “No-Rise” for the 100-year event compared to Existing Conditions.
  - The alternative projects provide a minimal reduction in the Existing Conditions 100-year floodplain.
3. At the September 7, 2021 TCC meeting, City of Tallahassee Stormwater Division requested Blueprint to analyze the addition of box culverts at Adams Street as this may be completed by the City or FDOT in the future.

## Results:

- Adams Street additional box culverts may provide substantial floodplain reduction east of Adams Street.
- The future Adams Street additional box culverts will require mitigation to address the increased downstream flows to achieve a “No-Rise”.





# HYDROLOGIC & HYDRAULIC ANALYSIS

## **FEMA Current Effective Model (CEM) – Starting Point**

- 1998 Conditions in SWMM (Version 4.3.1)
- East Ditch Watershed Size ~4,000 Acres

## **Duplicate Effective Model (DEM) for Study Area**

- Convert CEM to XPSWMM (Version 2019.1.2)
- Study Area ~326 Acres

## **Study Area Existing Conditions Model (ECM)**

***(Updates the DEM to Current Conditions within Study Area)***

- Study Area ~326 Acres
- Updating of Monroe Street Culverts (From two 7'x10' to four 7x10' Box Culverts)
- Updated Cross Sections
- Updated LiDAR Topography
- Orange Avenue Improvements (2007)
- Tartary Drive Improvements
- Country Club Creek/Putnam Drive Drainage and Sidewalk Improvements (2019)



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# HYDROLOGIC & HYDRAULIC ANALYSIS

## **FEMA Current Effective Model (CEM) – Starting Point**

- 1998 Conditions in SWMM (Version 4.3.1)

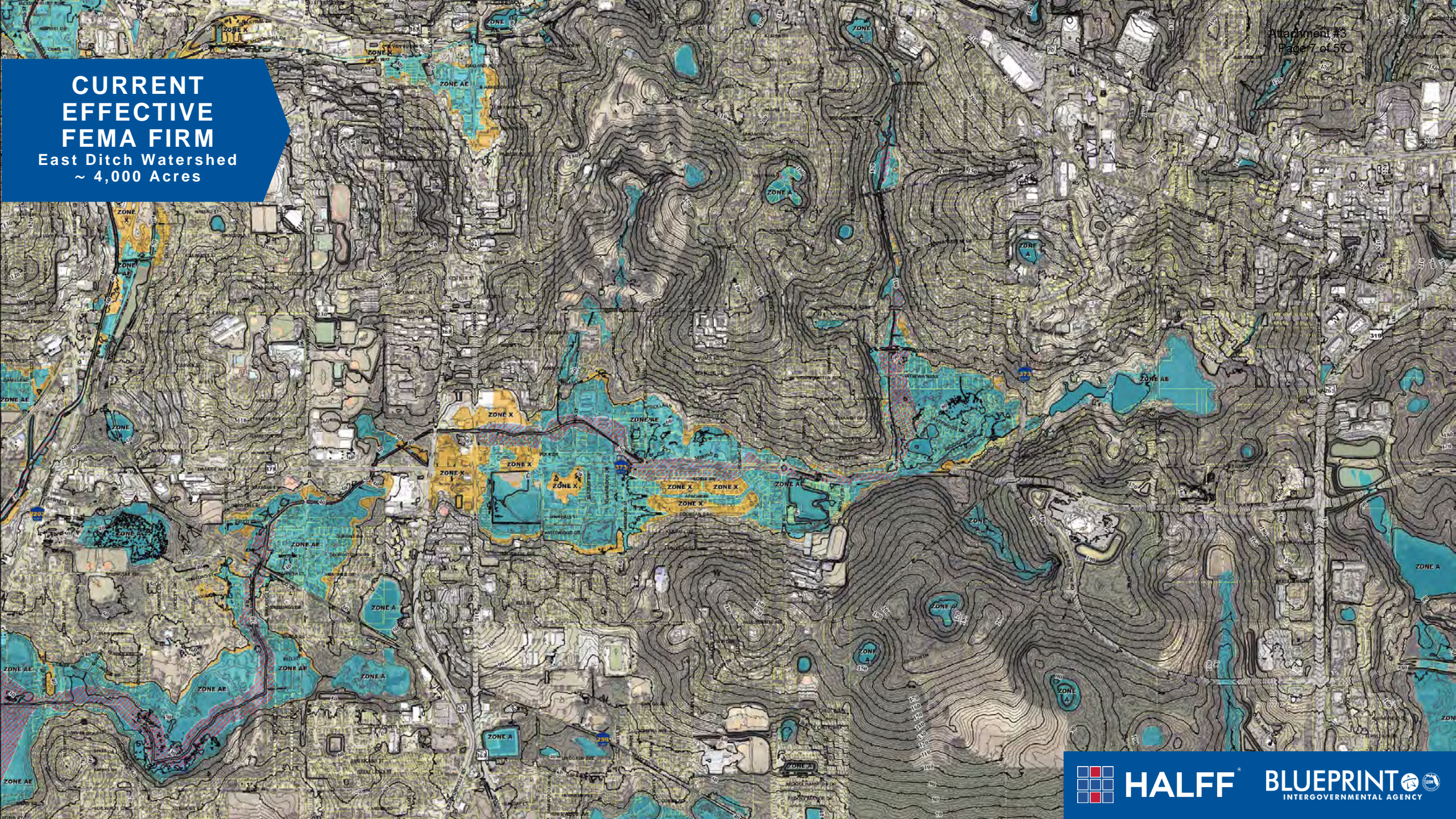
## **Duplicate Effective Model (DEM)**

- Convert CEM to XPSWMM (Version 2019.1.2)





**CURRENT  
EFFECTIVE  
FEMA FIRM**  
East Ditch Watershed  
~ 4,000 Acres



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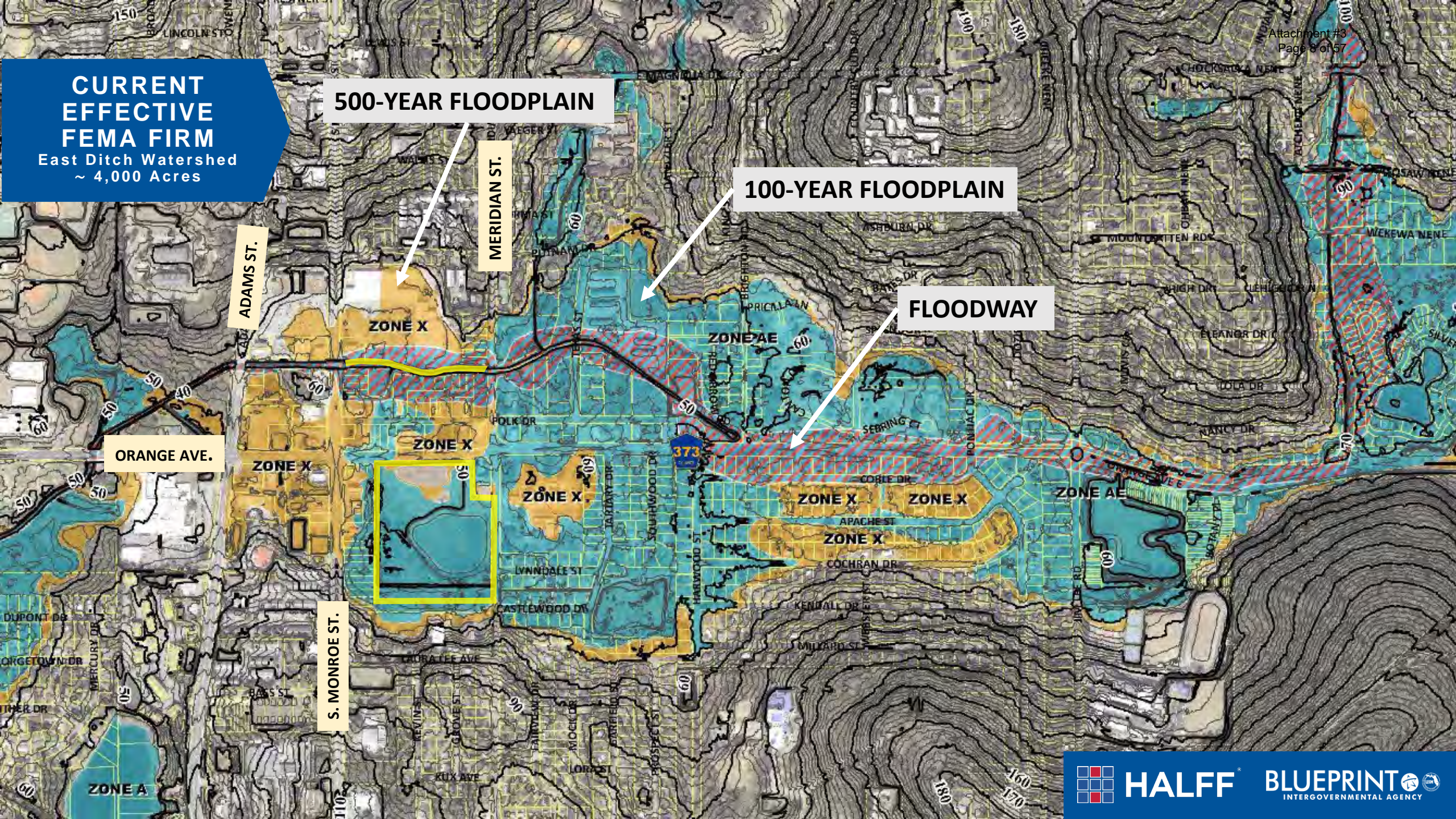


**CURRENT  
EFFECTIVE  
FEMA FIRM**  
East Ditch Watershed  
~ 4,000 Acres

**500-YEAR FLOODPLAIN**

**100-YEAR FLOODPLAIN**

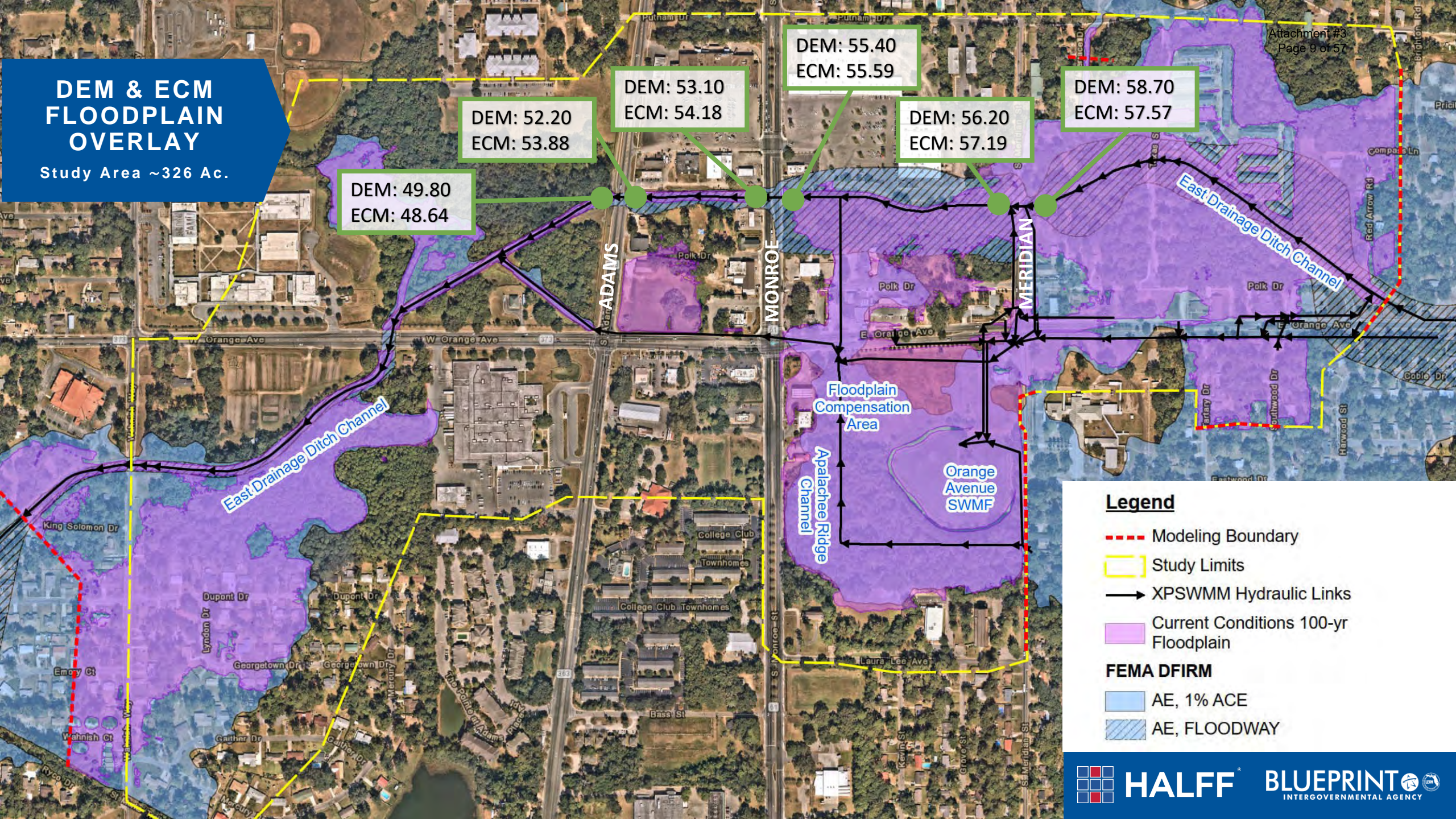
**FLOODWAY**





# DEM & ECM FLOODPLAIN OVERLAY

Study Area ~326 Ac.



## Legend

- Modeling Boundary
- Study Limits
- XPSWMM Hydraulic Links
- Current Conditions 100-yr Floodplain

## FEMA DFIRM

- AE, 1% ACE
- AE, FLOODWAY



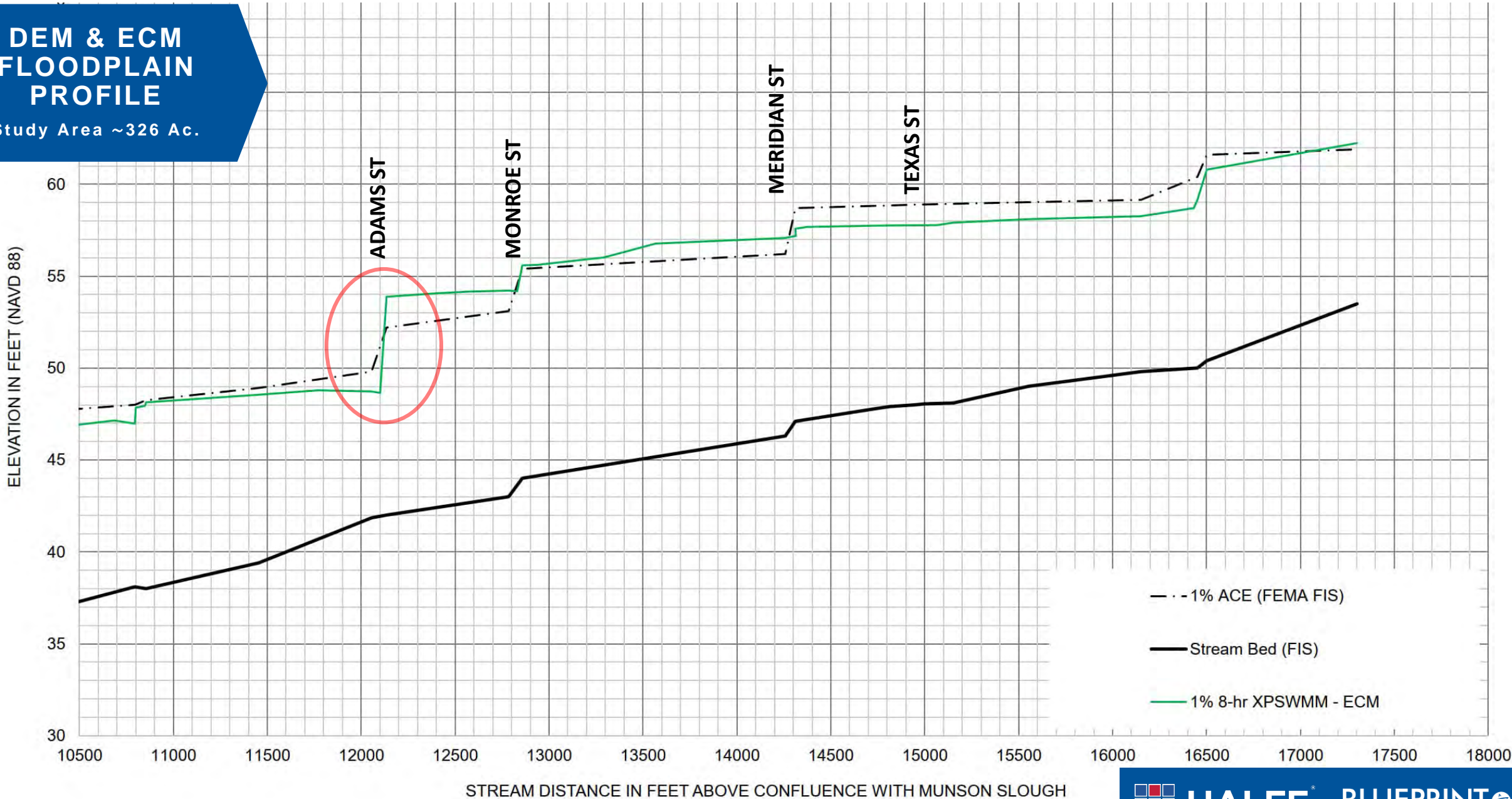
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# DEM & ECM FLOODPLAIN PROFILE

Study Area ~326 Ac.



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## MONROE STREET 4 BOX CULVERTS



## DOWNSTREAM ADAMS STREET 2 BOX CULVERTS



Note: Adams Street is outside of  
Blueprint's Project Limits.



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# ALTERNATIVES ANALYSIS

- ~~Alternative 1: Replace Open Ditch with 3-12'x6' Box Culverts~~
- ~~Alternative 2: Replace Open Ditch with 1-10'x8' & 2-10'x10' Box Culverts~~
- **Alternative 3.1: Open Conveyance with Gabion Wall on North Side**
- **Alternative 4: Excavation (In-line Pond) Concept**
- **Alternative 5: Adams Street Improvements Only (Addition of 2-10'x7' Box Culverts)**
- ~~Alternative 6: Alternative 1 with Adams Street Improvements~~
- ~~Alternative 7: Alternative 2 with Adams Street Improvements~~
- **Alternative 8.1: Alternative 3.1 (with Adams Street Culvert Expansion)**
- **Alternative 9: Alternative 4 (with Adams Street Culvert Expansion)**





# ALTERNATIVE 3.1: GABION ON NORTH SIDE

Attachment #3  
Page 13 of 57

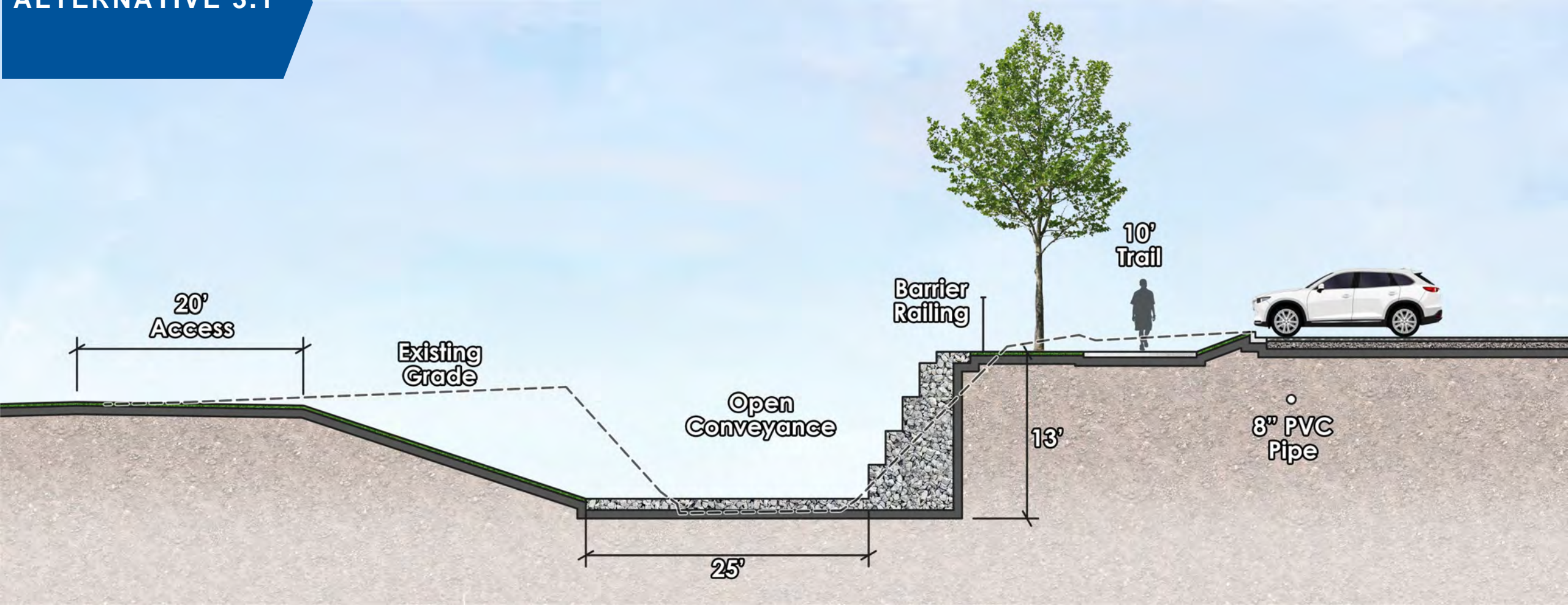


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ALTERNATIVE 3.1



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## ALTERNATIVE 3.1

From Meridian St  
Looking West

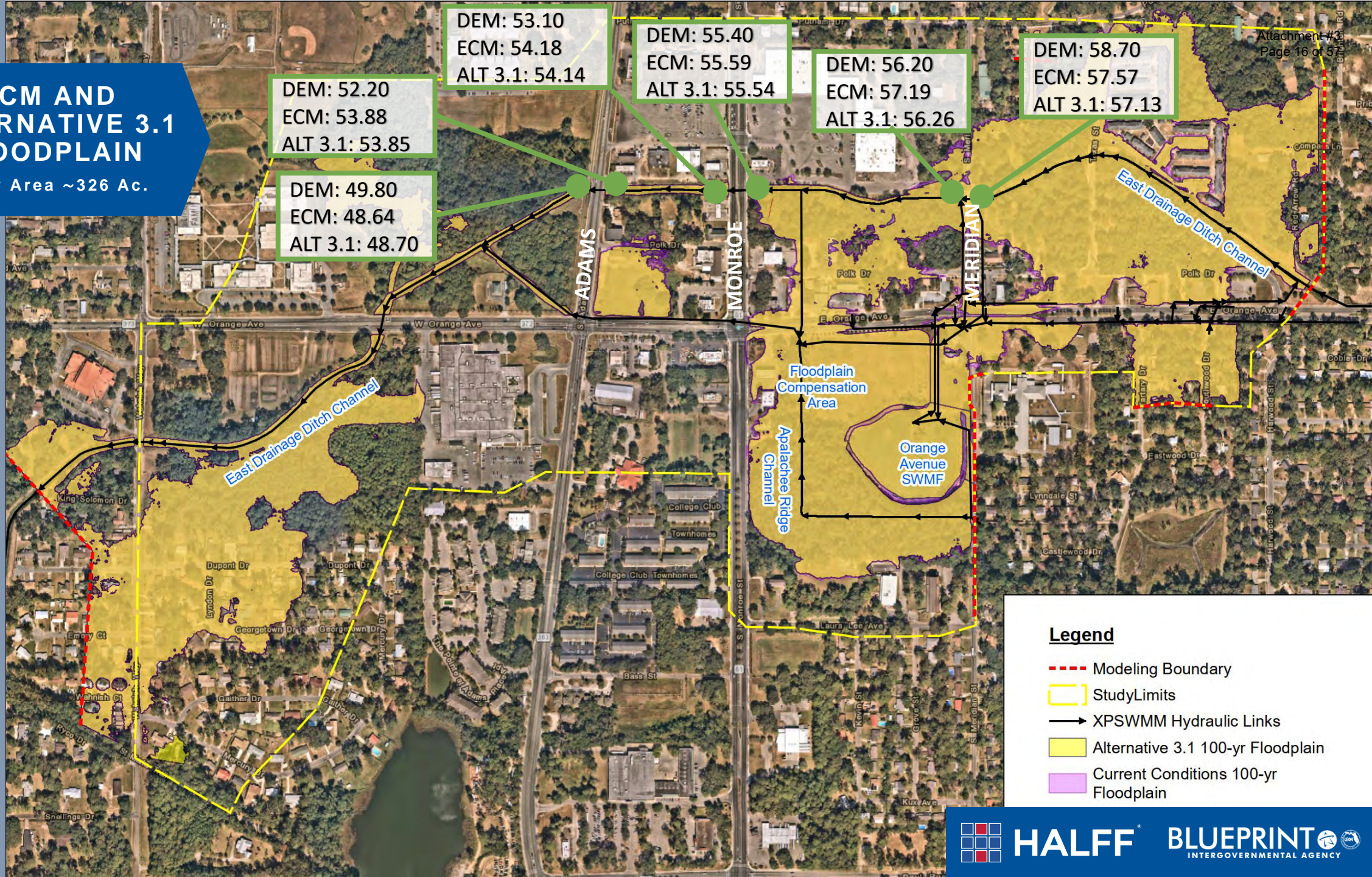


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**ECM AND  
ALTERNATIVE 3.1  
FLOODPLAIN**  
Study Area ~326 Ac.



**Legend**

- Modeling Boundary
- StudyLimits
- XPSWMM Hydraulic Links
- Alternative 3.1 100-yr Floodplain
- Current Conditions 100-yr Floodplain



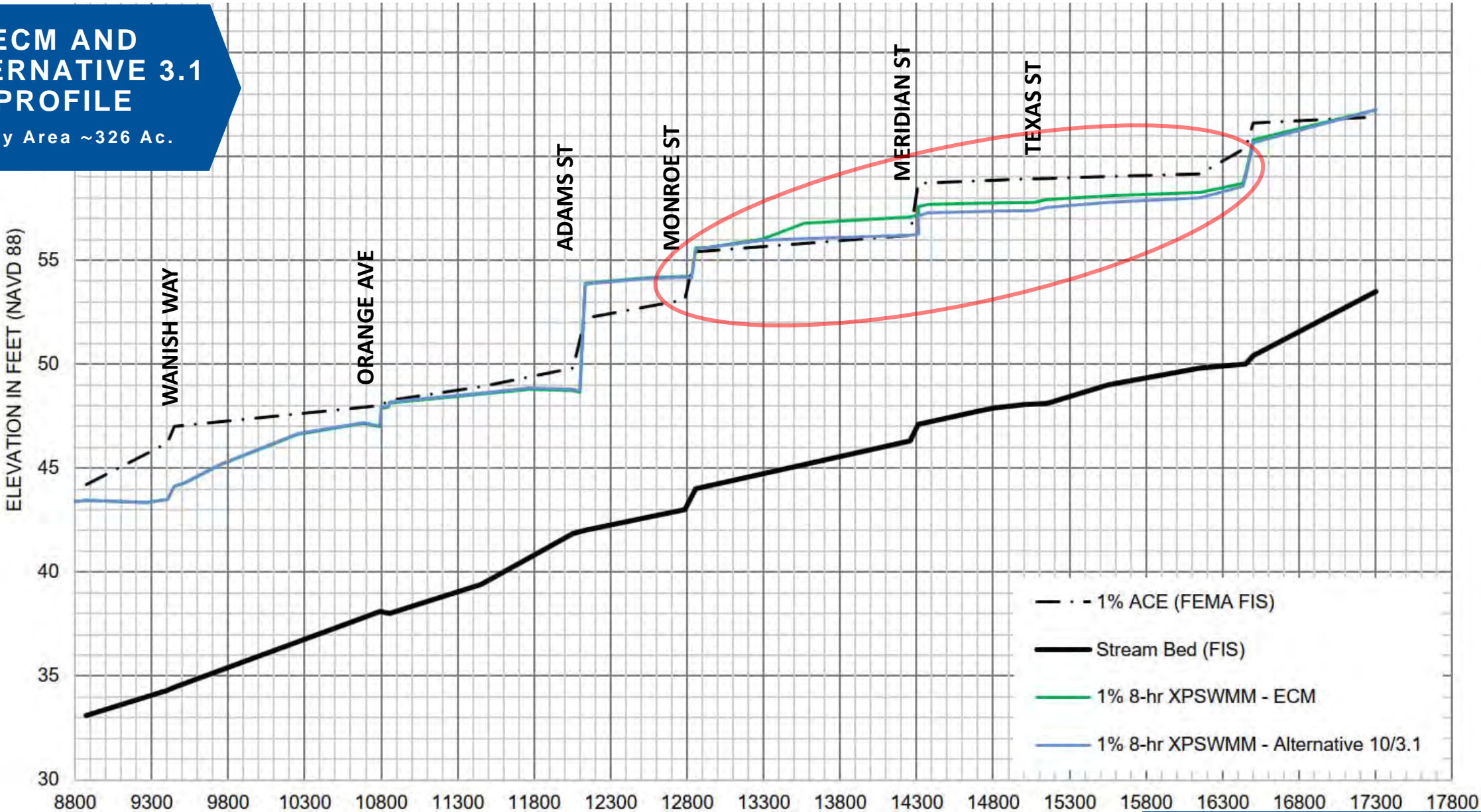
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# ECM AND ALTERNATIVE 3.1 PROFILE

Study Area ~326 Ac.

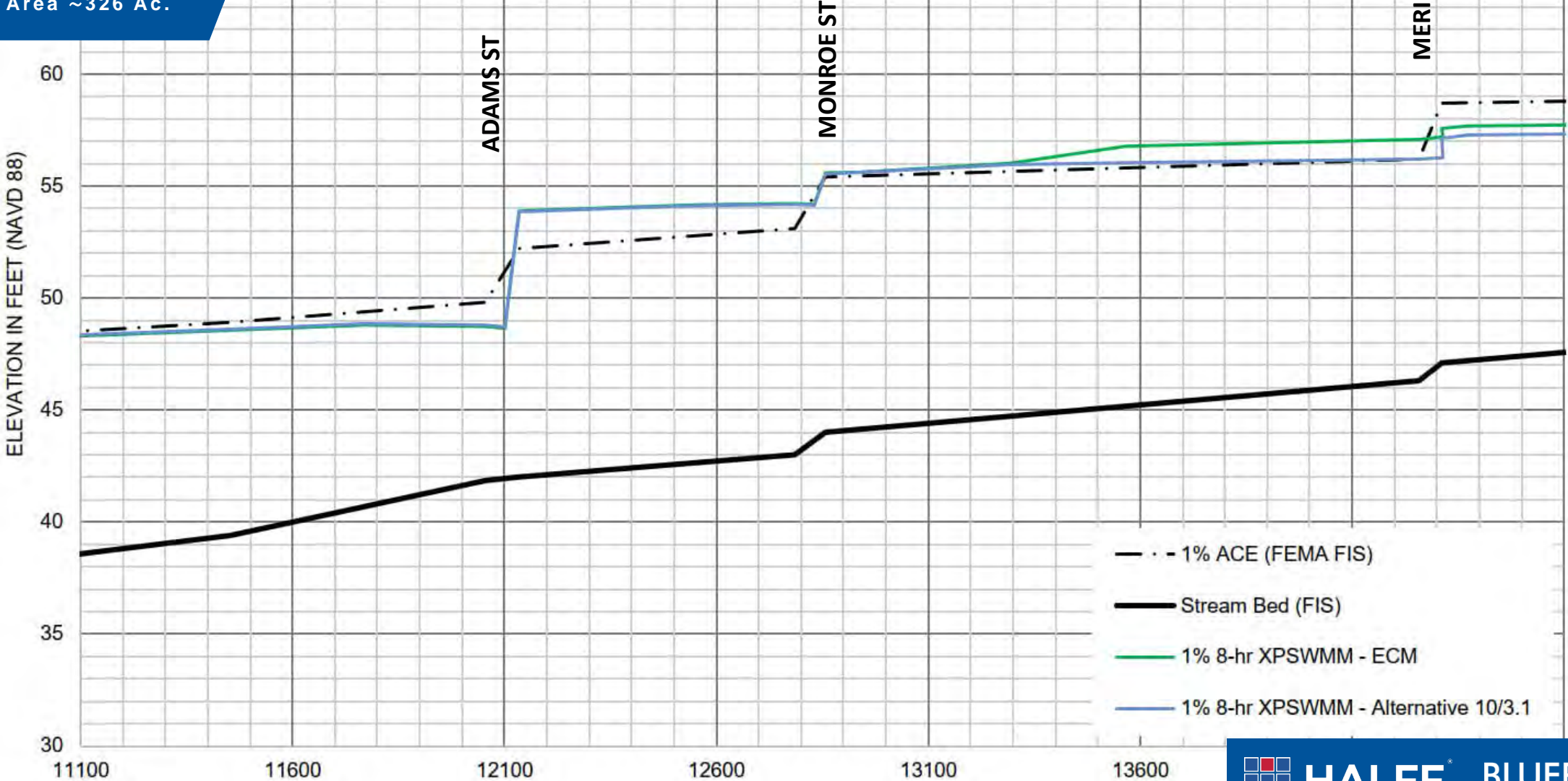


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# ECM AND ALTERNATIVE 3.1 PROFILE

Study Area ~326 Ac.



# ECM AND ALTERNATIVE 3.1 STAGE COMPARISON

Study Area ~326 Ac.

Location	1% 8-hr XPSWMM - DEM	1% 8-hr XPSWMM - ECM	1% 8-hr XPSWMM - PCM ALT 3.1	 (PCM-ECM)
	FT, NAVD 88	FT, NAVD 88	FT, NAVD 88	FT
Adams St D/S	49.80	48.64	48.70	+0.06'
Adams St U/S	52.20	53.88	53.85	-0.04'
Monroe St D/S	53.10	54.18	54.14	-0.03'
Monroe St U/S	55.40	55.59	55.54	-0.05'
Meridian St D/S	56.20	57.19	56.26	-0.93'
Meridian St U/S	58.70	57.57	57.13	-0.44'

Note: Alternate 3.1 shows a minor rise downstream of Adams Street for the 100-year event compared to the ECM. Concept adjustments and updated modeling could potentially remove the minor rise.



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# ALTERNATIVE 3.1+ : GABION ON NORTH SIDE

Attachment #3  
Page 20 of 57

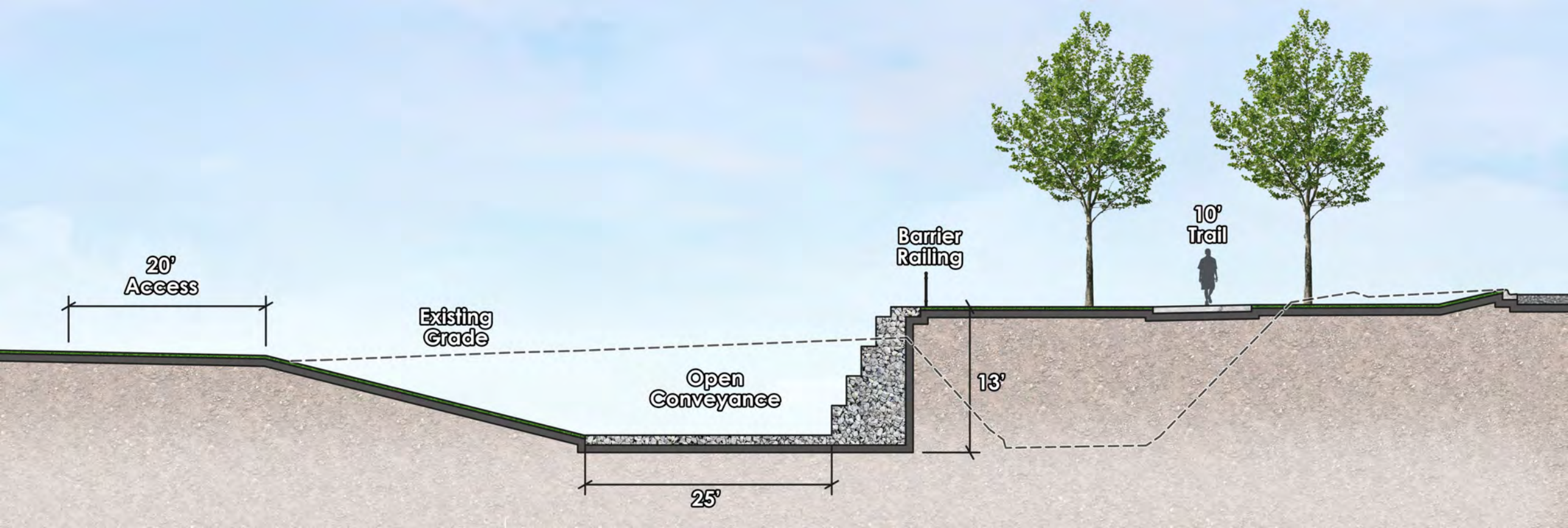


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ALTERNATIVE 3.1+





# ALTERNATIVE 4: EXCAVATION CONCEPT WITH WEIR



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## ALTERNATIVE 4

From Meridian St  
Looking West



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## ALTERNATIVE 4

From South Side  
Looking Northeast



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# ECM AND ALTERNATIVE 4 FLOODPLAIN

Without Adams  
Study Area ~326 Ac.

## Proposed East Ditch Concept with Floodplain Mapping

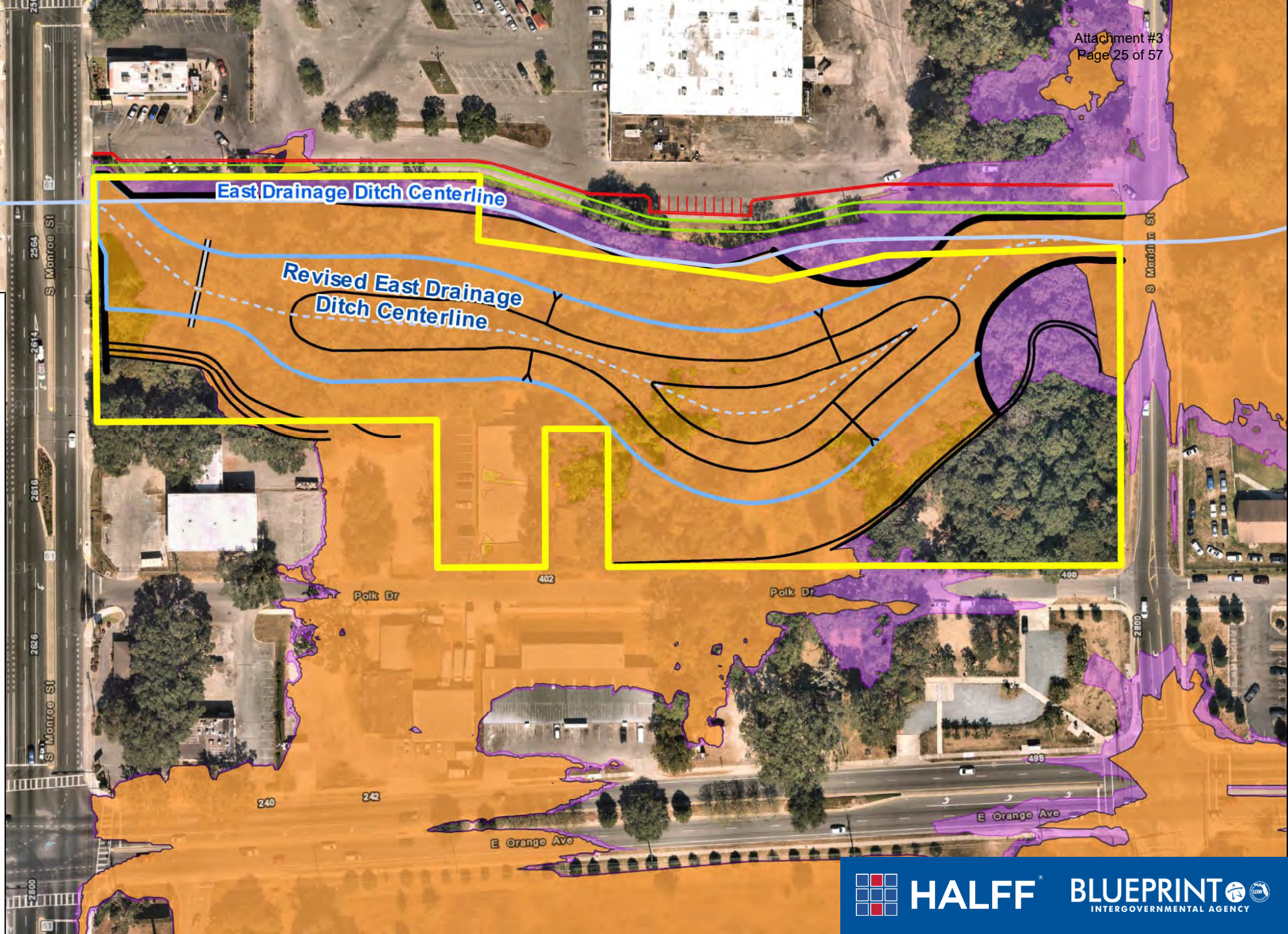
### Legend

- Approximate Limits of Property Acquisition for Flood Benefits
- Existing East Ditch Centerline
- Revised East Ditch Centerline

### Floodplain Excavation Concept

#### Layer

- Proposed Trail
- Proposed Curb
- Proposed Normal Ponding Elev
- Proposed Grading Layout
- Proposed Gabion Wall
- Proposed Weir
- Proposed Conditions 100-yr Floodplain
- Current Conditions 100-yr Floodplain





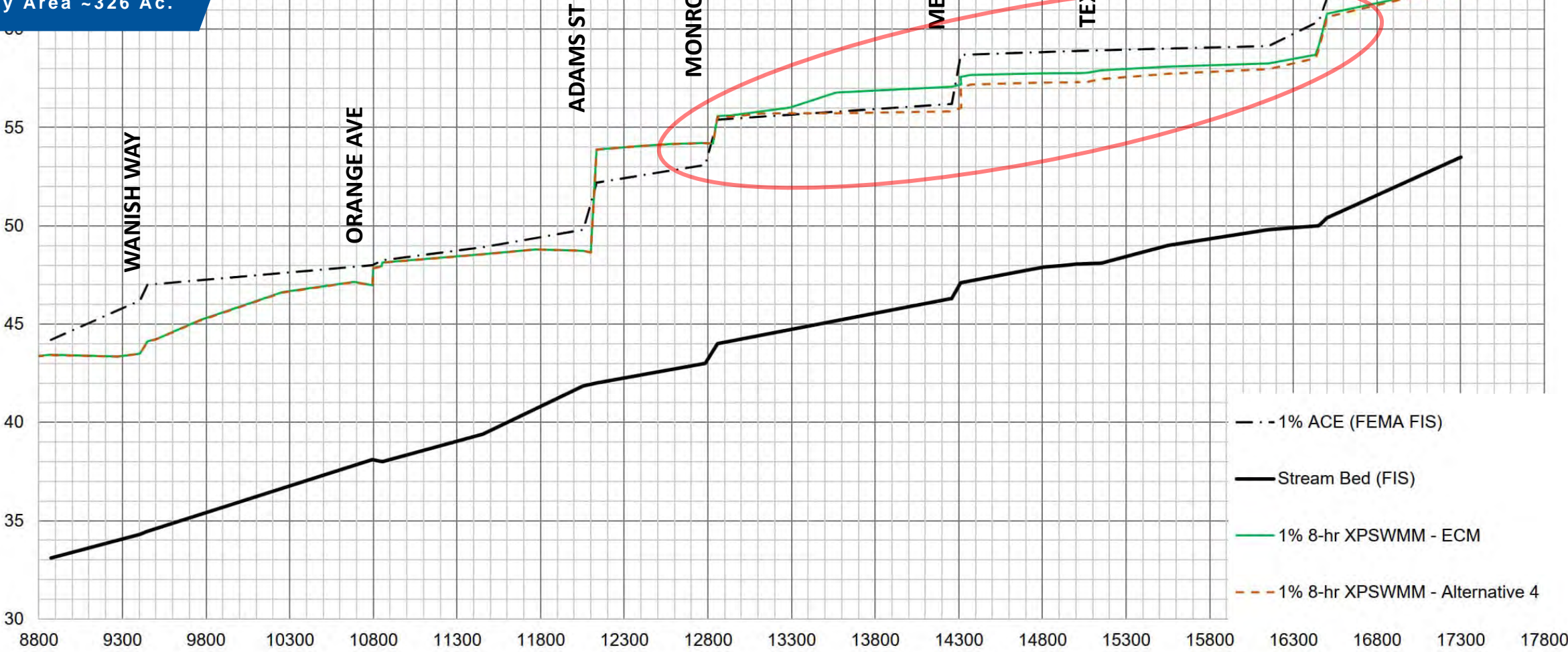




# ECM AND ALTERNATIVE 4 PROFILE

Without Adams  
Study Area ~326 Ac.

ELEVATION IN FEET (NAVD 88)



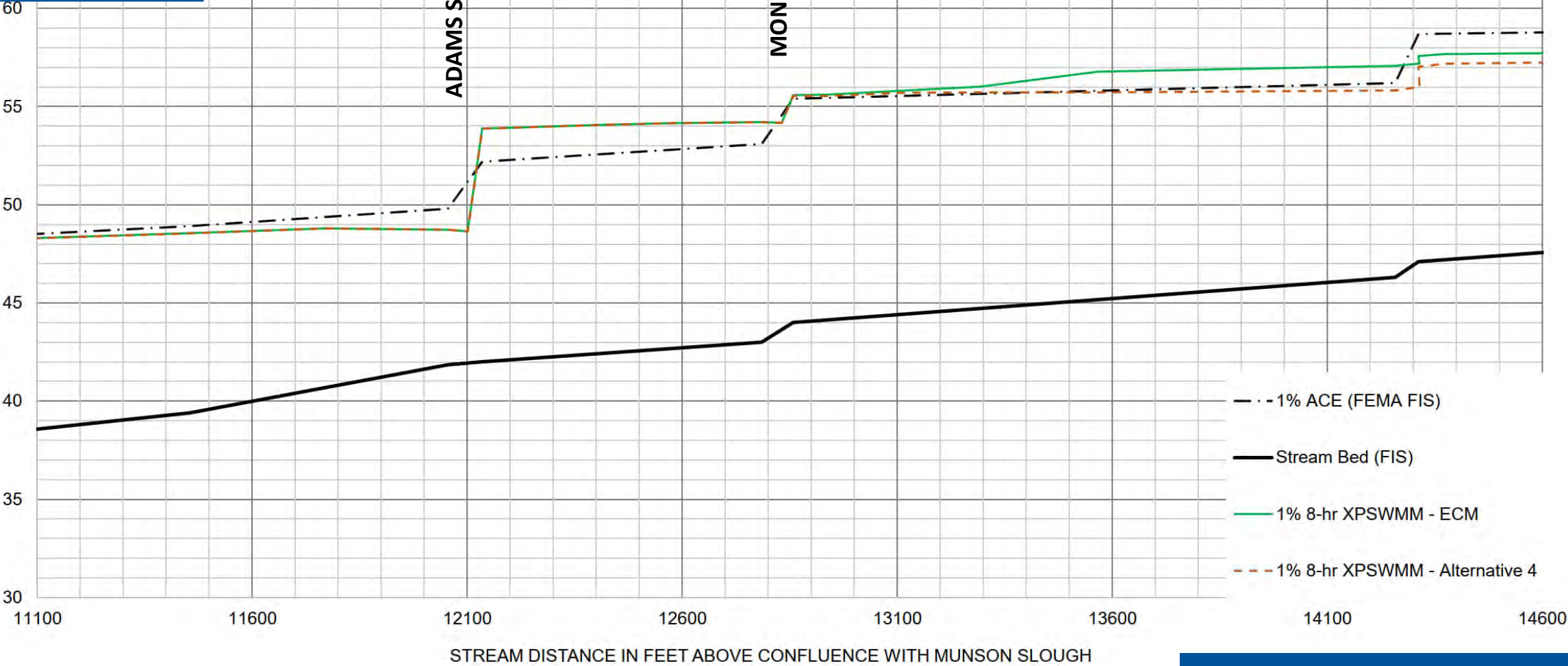
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH MUNSON SLOUGH



# ECM AND ALTERNATIVE 4 PROFILE


Without Adams  
Study Area ~326 Ac.

ELEVATION IN FEET (NAVD 88)





**ECM AND  
ALTERNATIVE 4  
STAGE COMPARISON**  
Without Adams  
Study Area ~326 Ac.

Location	1% 8-hr XPSWMM - DEM	1% 8-hr XPSWMM - ECM	1% 8-hr XPSWMM - PCM ALT 4	 (PCM-ECM)
	FT, NAVD 88	FT, NAVD 88	FT, NAVD 88	FT
Adams St D/S	49.80	48.64	48.64	0.00'
Adams St U/S	52.20	53.88	53.88	0.00'
Monroe St D/S	53.10	54.18	54.17	-0.01'
Monroe St U/S	55.40	55.59	55.55	-0.04'
Meridian St D/S	56.20	57.19	56.00	-1.19'
Meridian St U/S	58.70	57.57	57.03	-0.54'

Note: Alternate 4 shows a “No-Rise” for the 100-year event compared to the ECM.













# ALTERNATIVE 5: ADAMS STREET IMPROVEMENTS ONLY (ADDITION OF 2 - 10' x 7' BOX CULVERTS)



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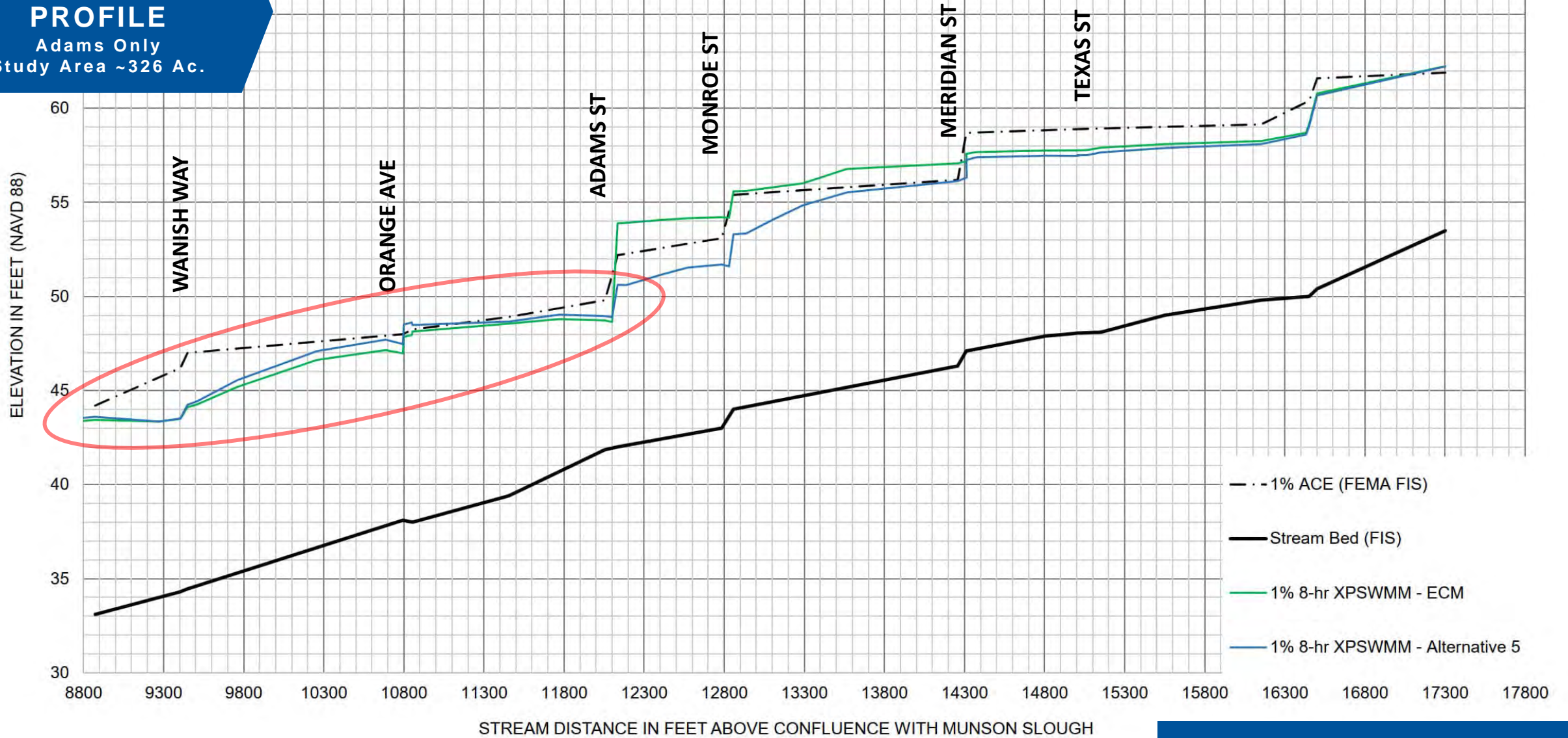






# ECM AND ALTERNATIVE 5 PROFILE

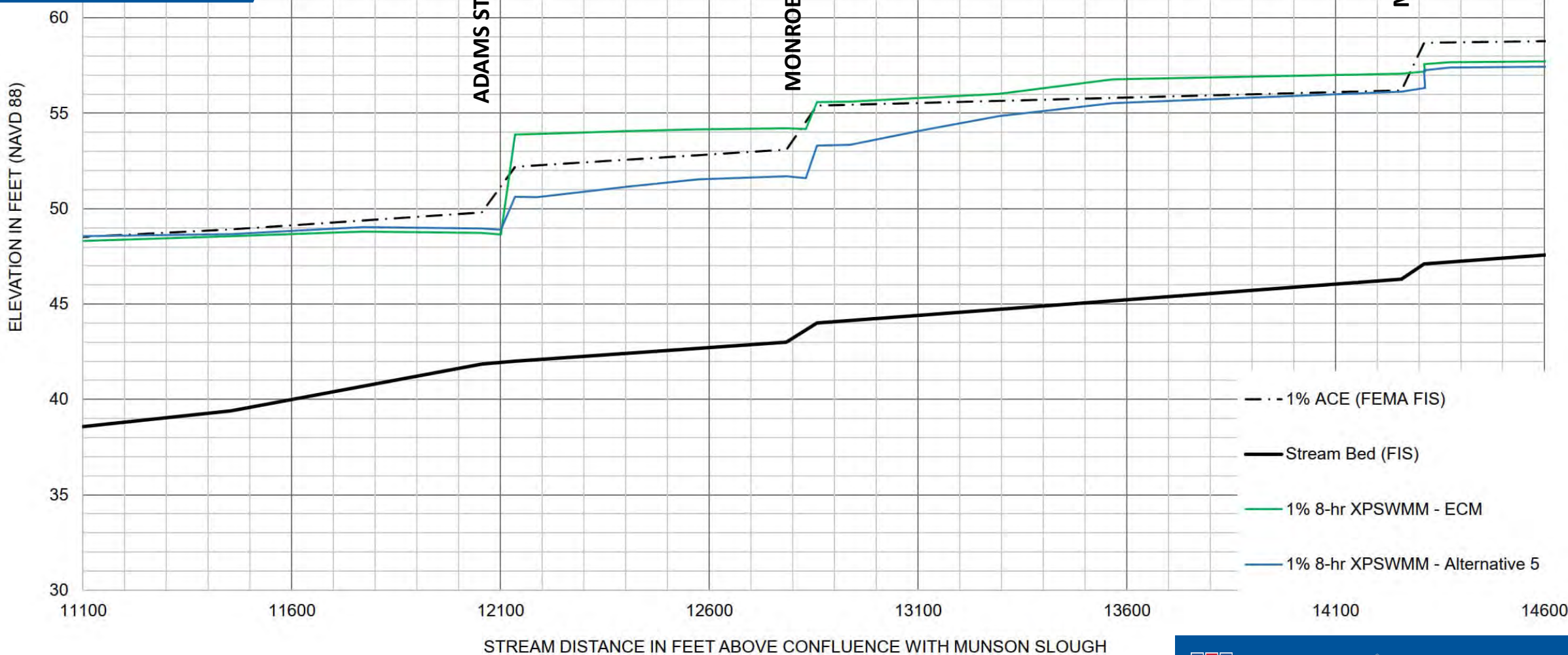
Adams Only  
Study Area ~326 Ac.






# ECM AND ALTERNATIVE 5 PROFILE

Adams Only  
Study Area ~326 Ac.





**ECM AND  
ALTERNATIVE 5  
STAGE COMPARISON**  
Adams Only  
Study Area ~326 Ac.

Location	1% 8-hr XPSWMM - DEM	1% 8-hr XPSWMM - ECM	1% 8-hr XPSWMM - PCM ALT 5	 (PCM-ECM)
	FT, NAVD 88	FT, NAVD 88	FT, NAVD 88	FT
Adams St D/S	49.80	48.64	48.90	+0.26'
Adams St U/S	52.20	53.88	50.62	-3.26'
Monroe St D/S	53.10	54.18	51.59	-2.59'
Monroe St U/S	55.40	55.59	53.31	-2.28'
Meridian St D/S	56.20	57.19	56.33	-0.86'
Meridian St U/S	58.70	57.57	57.25	-0.32'





# ALTERNATIVE 8.1: ALT 3.1 *WITH ADAMS STREET* (ADDITION OF 2 - 10' x 7' BOX CULVERTS)





# ECM AND ALTERNATIVE 8.1 FLOODPLAIN

With Adams St.  
Study Area ~326 Ac.

DEM: 52.20  
ECM: 53.88  
ALT 5: 50.62

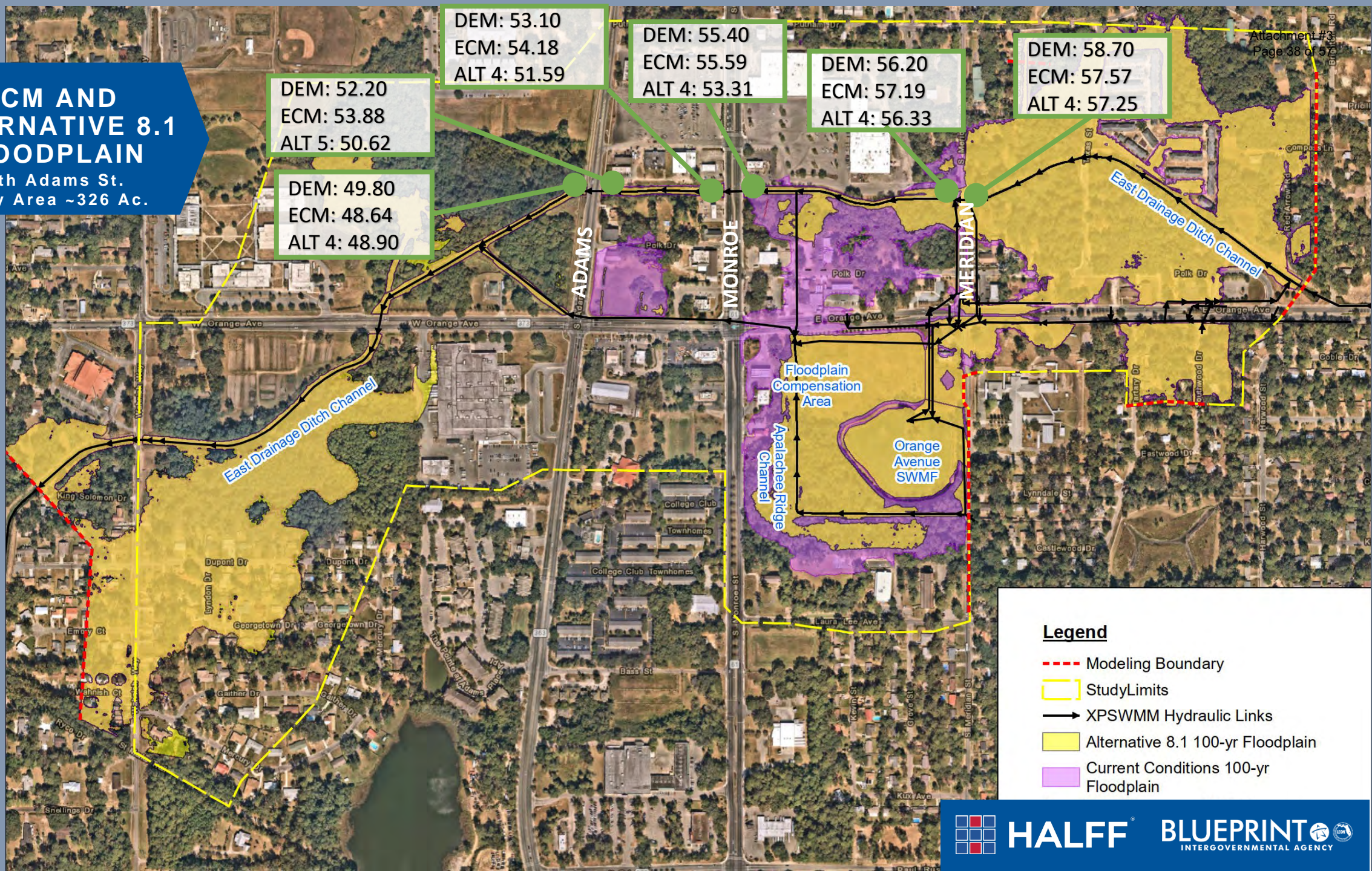
DEM: 53.10  
ECM: 54.18  
ALT 4: 51.59

DEM: 55.40  
ECM: 55.59  
ALT 4: 53.31

DEM: 56.20  
ECM: 57.19  
ALT 4: 56.33

DEM: 58.70  
ECM: 57.57  
ALT 4: 57.25

DEM: 49.80  
ECM: 48.64  
ALT 4: 48.90



## Legend

- Modeling Boundary
- Study Limits
- XPSWMM Hydraulic Links
- Alternative 8.1 100-yr Floodplain
- Current Conditions 100-yr Floodplain



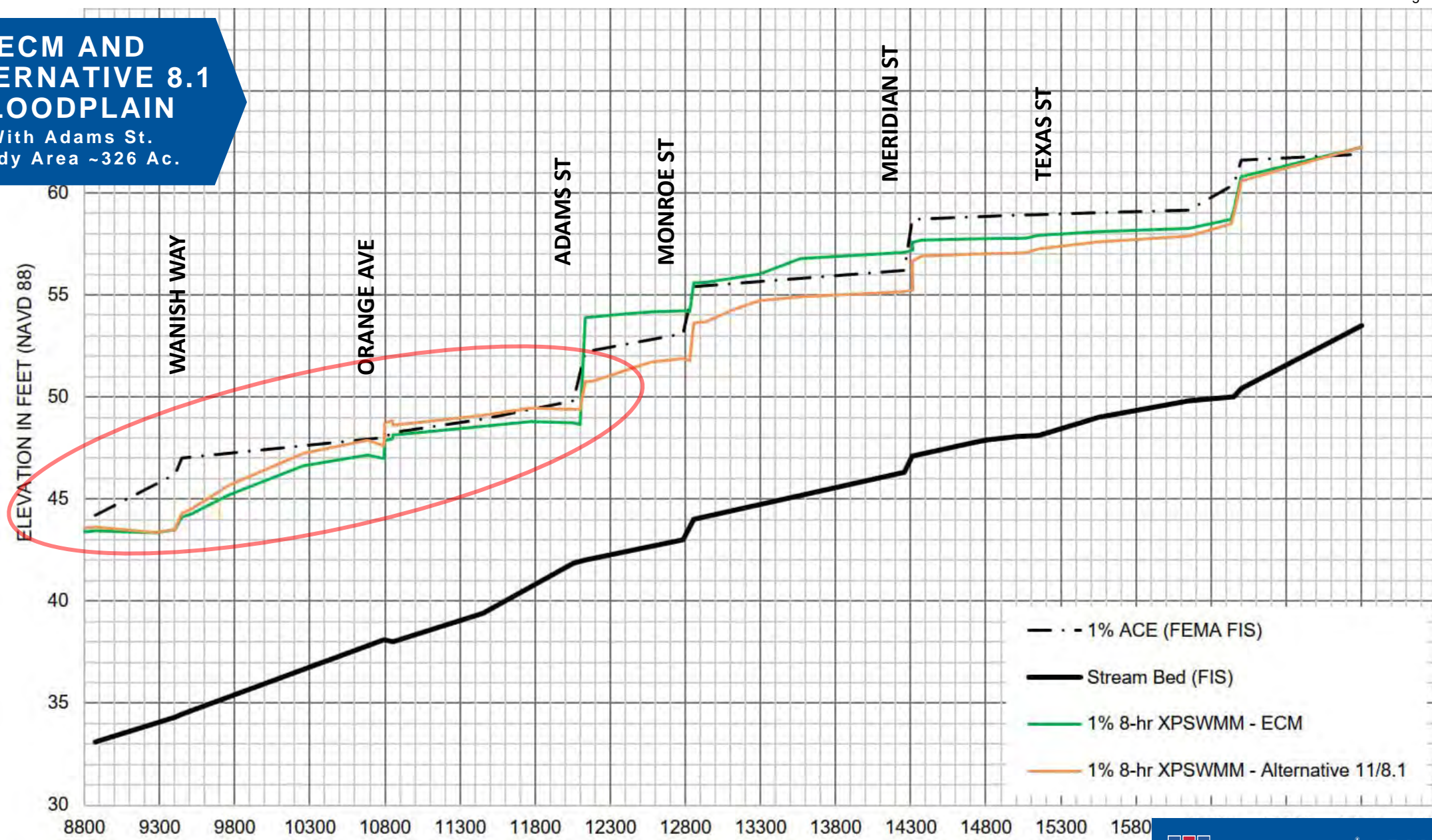
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**BLUEPRINT**  
INTERGOVERNMENTAL AGENCY



# ECM AND ALTERNATIVE 8.1 FLOODPLAIN

With Adams St.  
Study Area ~326 Ac.



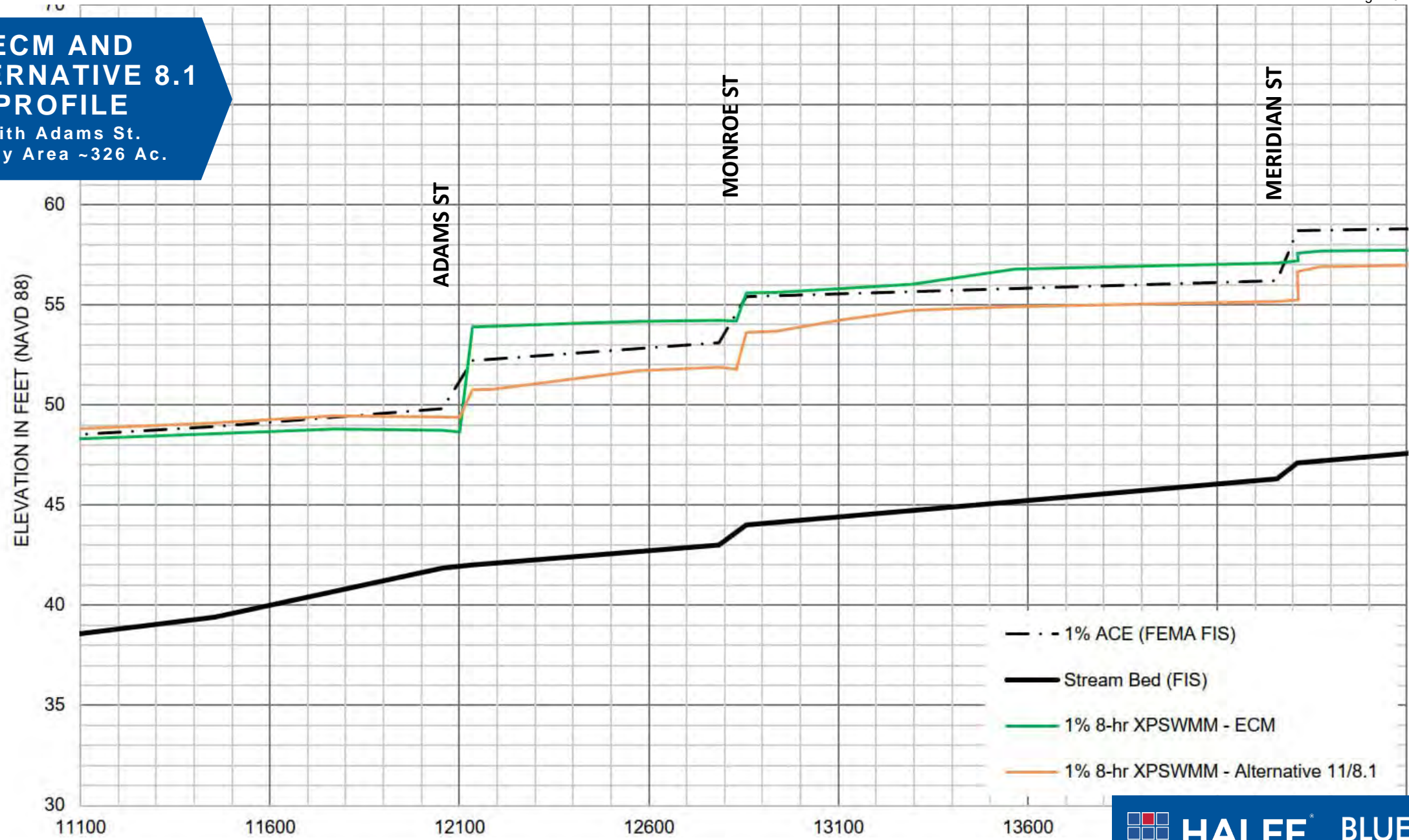
**HALFF**

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INTERGOVERNMENTAL AGENCY



# ECM AND ALTERNATIVE 8.1 PROFILE


With Adams St.  
Study Area ~326 Ac.





## ECM AND ALTERNATIVE 8.1 STAGE COMPARISON

With Adams St.  
Study Area ~326 Ac.

Location	1% 8-hr XPSWMM - DEM	1% 8-hr XPSWMM - ECM	1% 8-hr XPSWMM - PCM ALT 8.1	 (PCM-ECM)
	FT, NAVD 88	FT, NAVD 88	FT, NAVD 88	FT
Adams St D/S	49.80	48.64	49.37	+0.29'
Adams St U/S	52.20	53.88	50.75	-3.12'
Monroe St D/S	53.10	54.18	51.77	-2.39'
Monroe St U/S	55.40	55.59	53.61	-2.09'
Meridian St D/S	56.20	57.19	55.25	-1.57'
Meridian St U/S	58.70	57.57	56.65	-0.64'



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INTERGOVERNMENTAL AGENCY



# ECM AND ALTERNATIVE 8.1 FLOODPLAIN

With Adams St.  
Study Area ~326 Ac.

DEM: 52.20  
ECM: 53.88  
ALT 5: 50.62

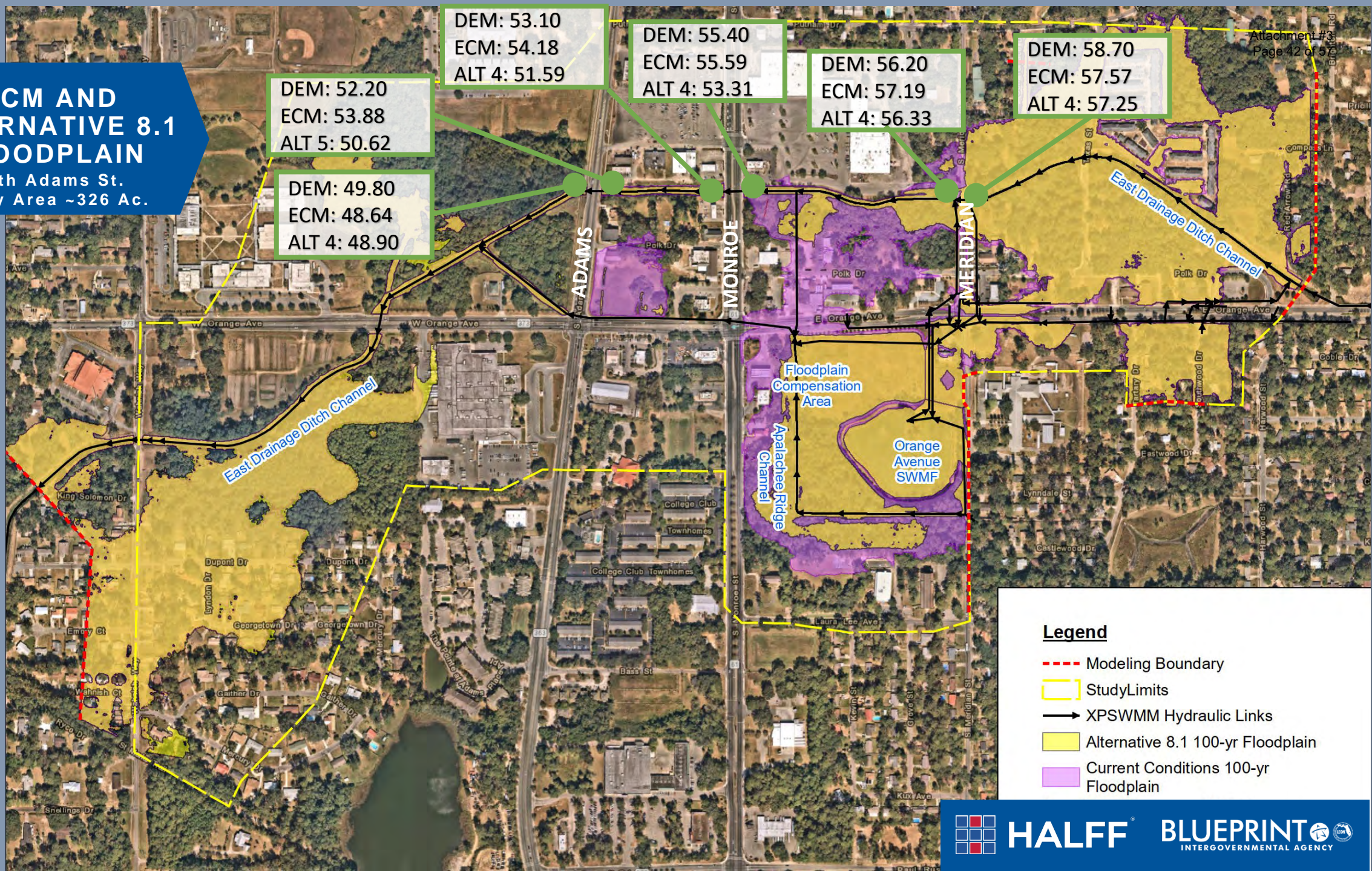
DEM: 53.10  
ECM: 54.18  
ALT 4: 51.59

DEM: 55.40  
ECM: 55.59  
ALT 4: 53.31

DEM: 56.20  
ECM: 57.19  
ALT 4: 56.33

DEM: 58.70  
ECM: 57.57  
ALT 4: 57.25

DEM: 49.80  
ECM: 48.64  
ALT 4: 48.90



## Legend

- Modeling Boundary
- - - Study Limits
- XPSWMM Hydraulic Links
- Alternative 8.1 100-yr Floodplain
- Current Conditions 100-yr Floodplain

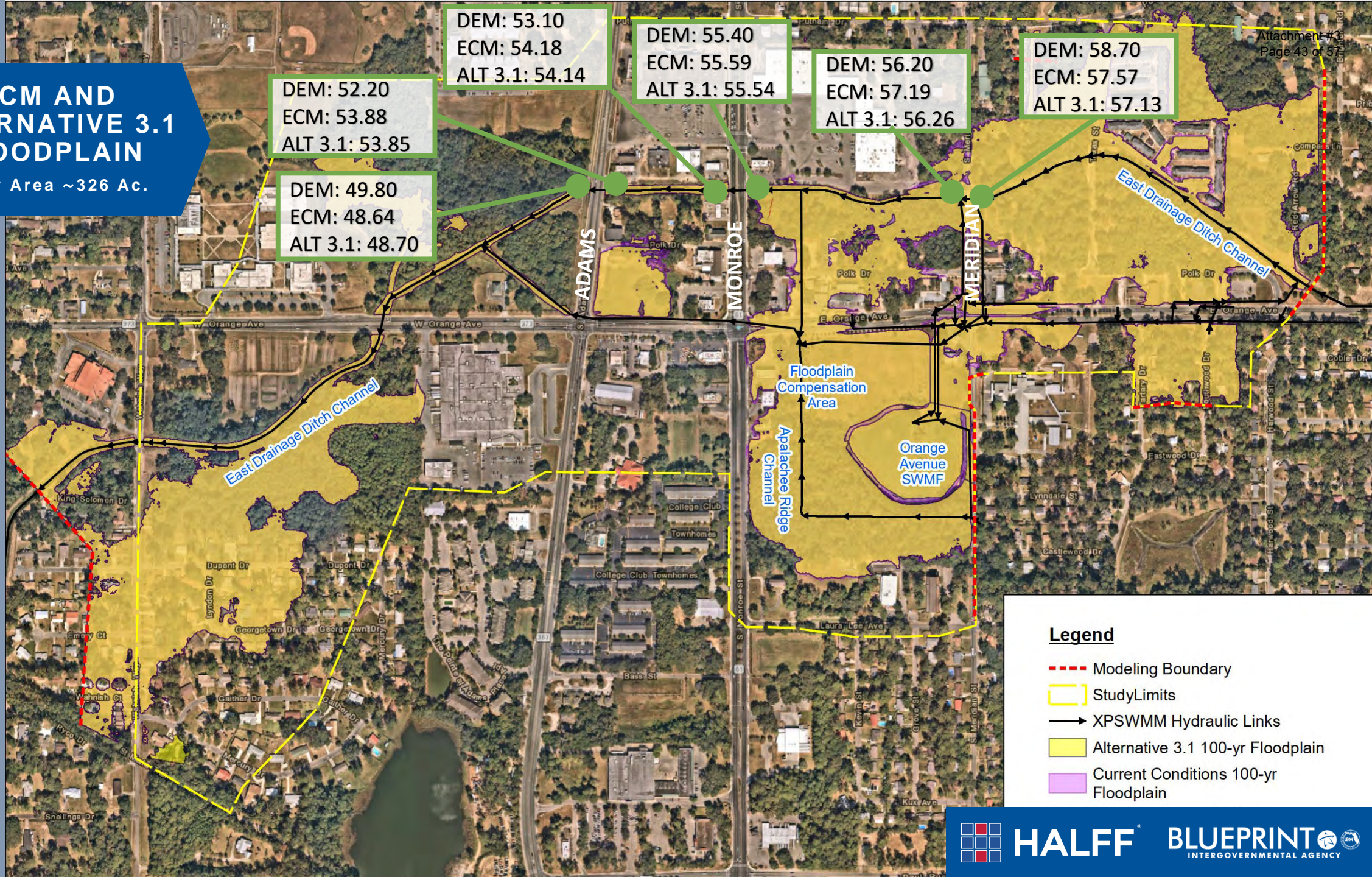


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INTERGOVERNMENTAL AGENCY



**ECM AND  
ALTERNATIVE 3.1  
FLOODPLAIN**  
Study Area ~326 Ac.



**Legend**

- Modeling Boundary
- StudyLimits
- XPSWMM Hydraulic Links
- Alternative 3.1 100-yr Floodplain
- Current Conditions 100-yr Floodplain



# ALTERNATIVE 9: ALT 4 *WITH ADAMS STREET* (ADDITION OF 2 - 10' x 7' BOX CULVERTS)



**HALFF**

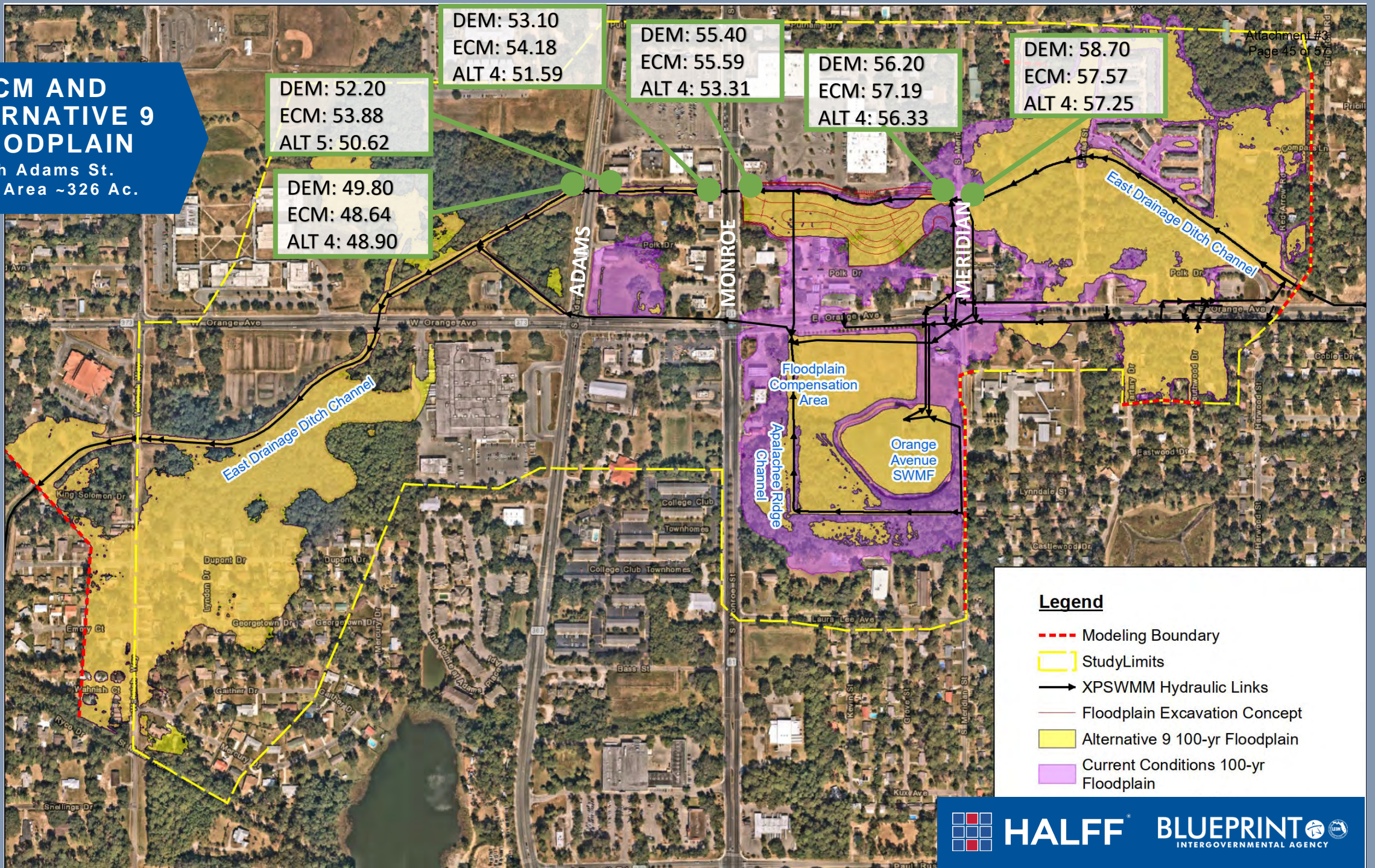
**BLUEPRINT**  
INTERGOVERNMENTAL AGENCY









## ECM AND ALTERNATIVE 9 FLOODPLAIN

**With Adams St.  
Study Area ~326 Ac.**

Attachment #3  
Page 45 of 57



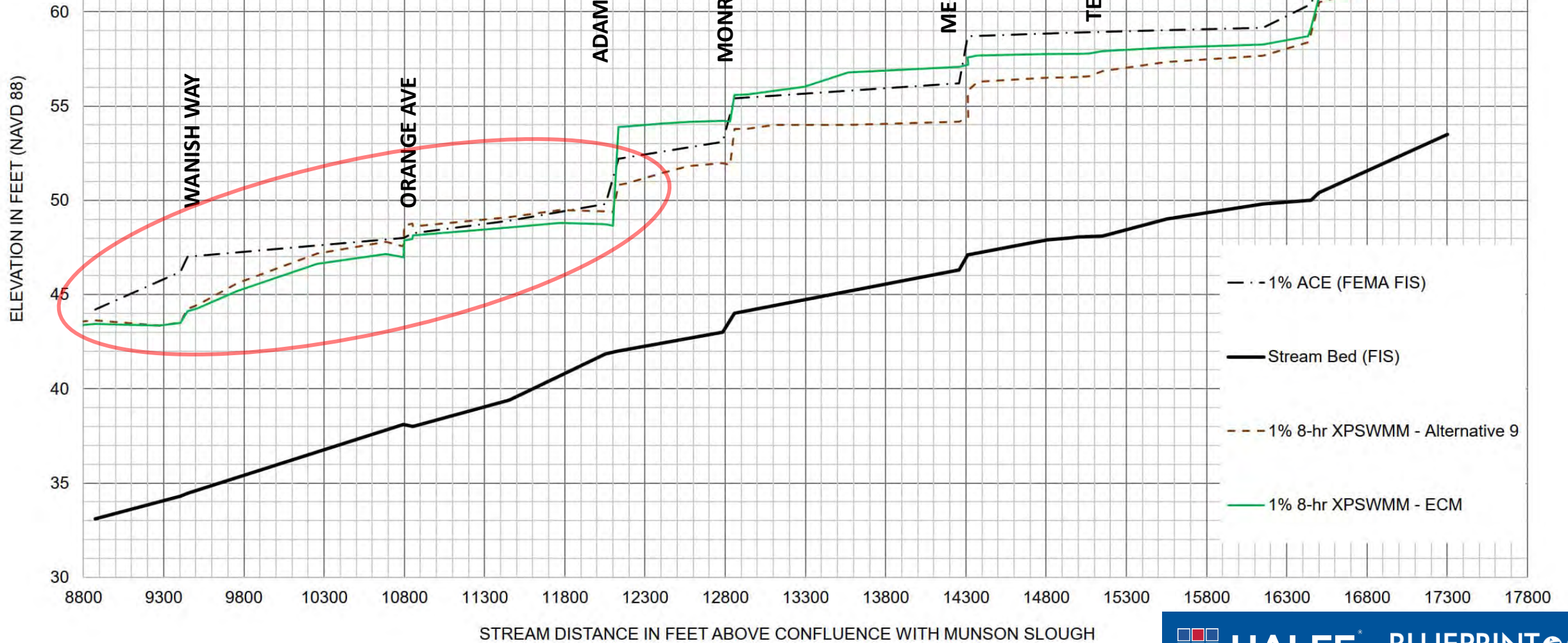
### Legend

-  Modeling Boundary
-  StudyLimits
-  XPSWMM Hydraulic Links
-  Floodplain Excavation Concept
-  Alternative 9 100-yr Floodplain
-  Current Conditions 100-yr Floodplain



# ECM AND ALTERNATIVE 9 PROFILE

With Adams St.  
Study Area ~326 Ac.

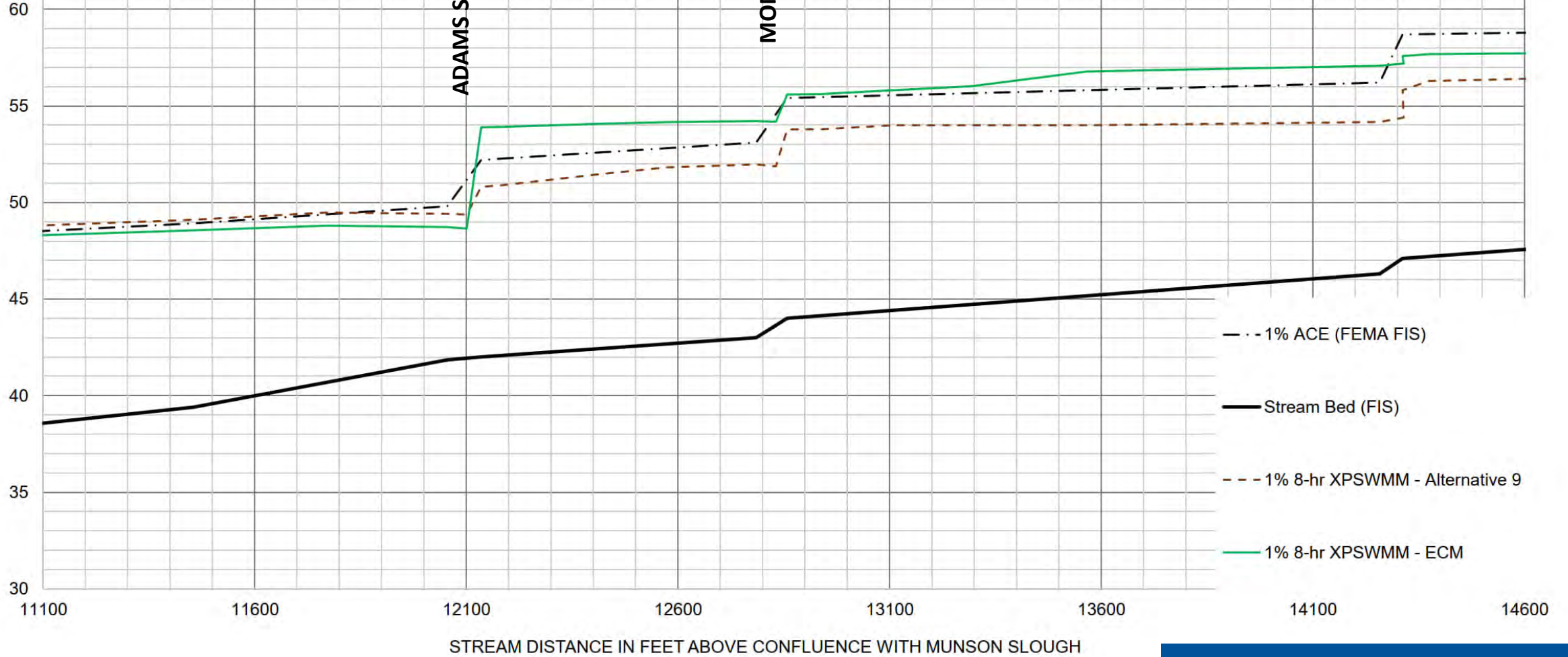




# ECM AND ALTERNATIVE 9 PROFILE


With Adams St.  
Study Area ~326 Ac.

ELEVATION IN FEET (NAVD 88)





**ECM AND  
ALTERNATIVE 9  
STAGE COMPARISON**  
With Adams St.  
Study Area ~326 Ac.

Location	1% 8-hr XPSWMM - DEM	1% 8-hr XPSWMM - ECM	1% 8-hr XPSWMM - PCM ALT 9	 (PCM-ECM)
	FT, NAVD 88	FT, NAVD 88	FT, NAVD 88	FT
Adams St D/S	49.80	48.64	49.37	+0.73'
Adams St U/S	52.20	53.88	50.80	-3.08'
Monroe St D/S	53.10	54.18	51.87	-2.31'
Monroe St U/S	55.40	55.59	53.78	-1.81'
Meridian St D/S	56.20	57.19	54.39	-2.08'
Meridian St U/S	58.70	57.57	55.81	-1.76'



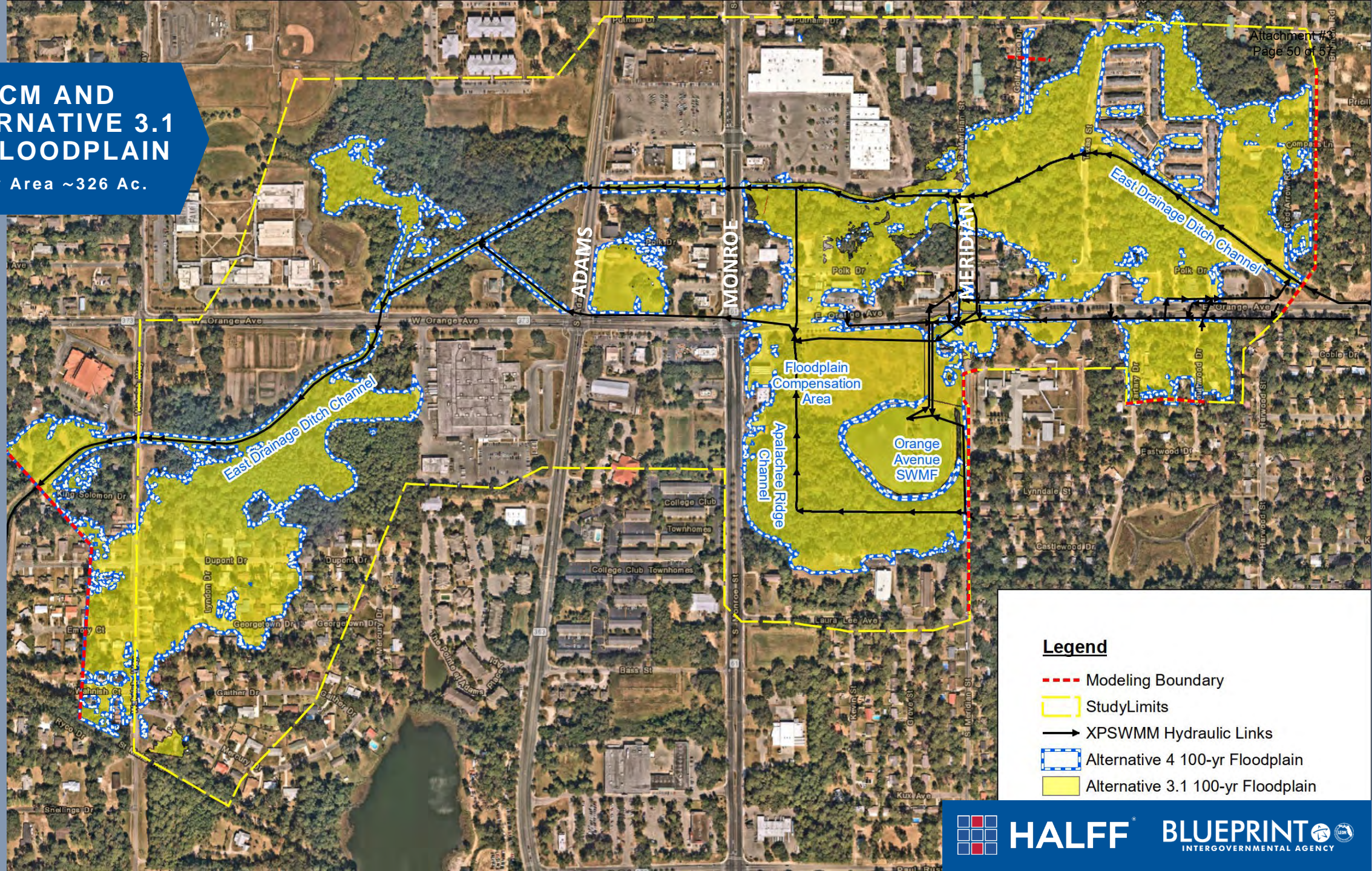






# ECM AND ALTERNATIVE 3.1 & 4 FLOODPLAIN

Study Area ~326 Ac.

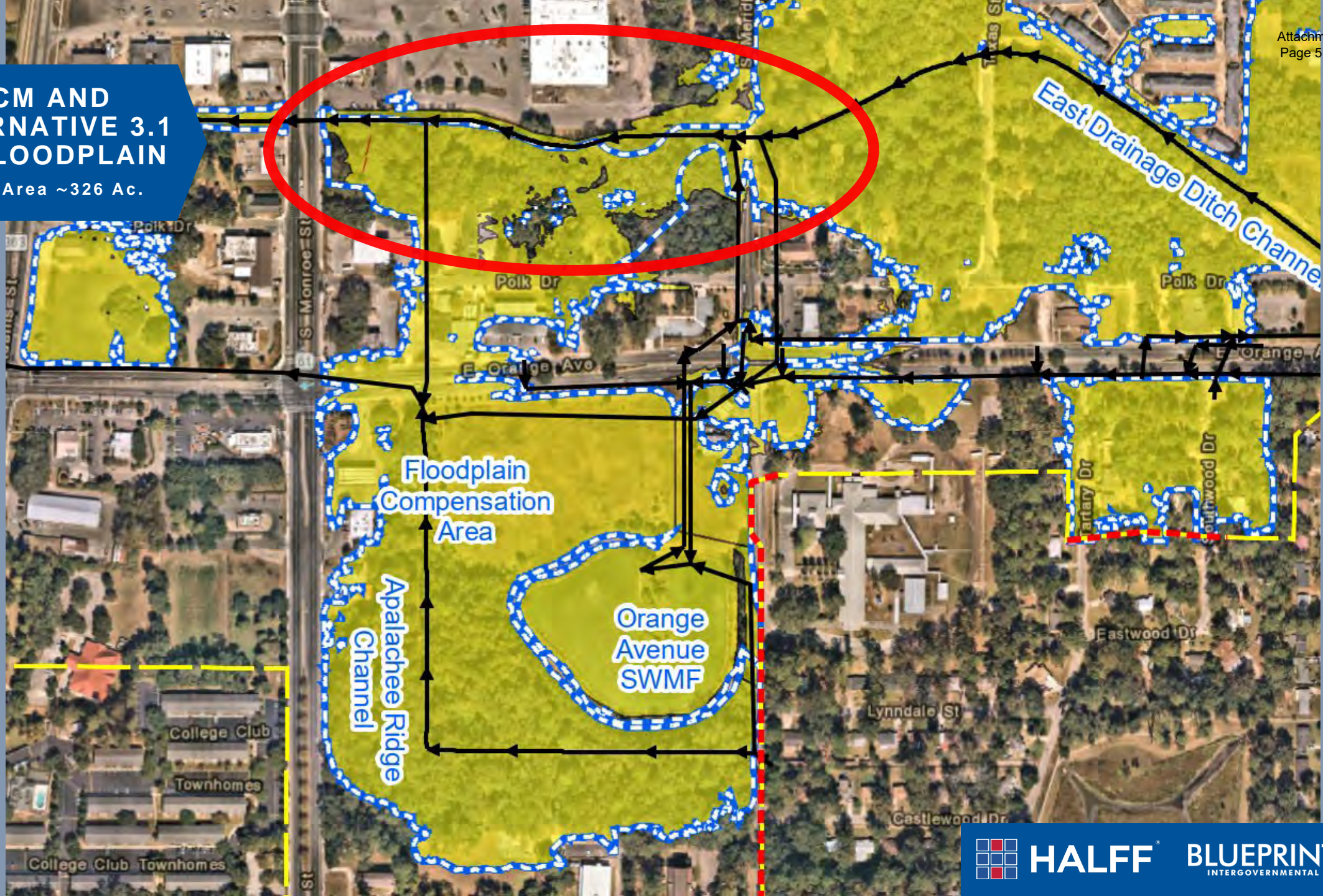


- Legend**
- Modeling Boundary
  - StudyLimits
  - XPSWMM Hydraulic Links
  - Alternative 4 100-yr Floodplain
  - Alternative 3.1 100-yr Floodplain



# ECM AND ALTERNATIVE 3.1 & 4 FLOODPLAIN

Study Area ~326 Ac.

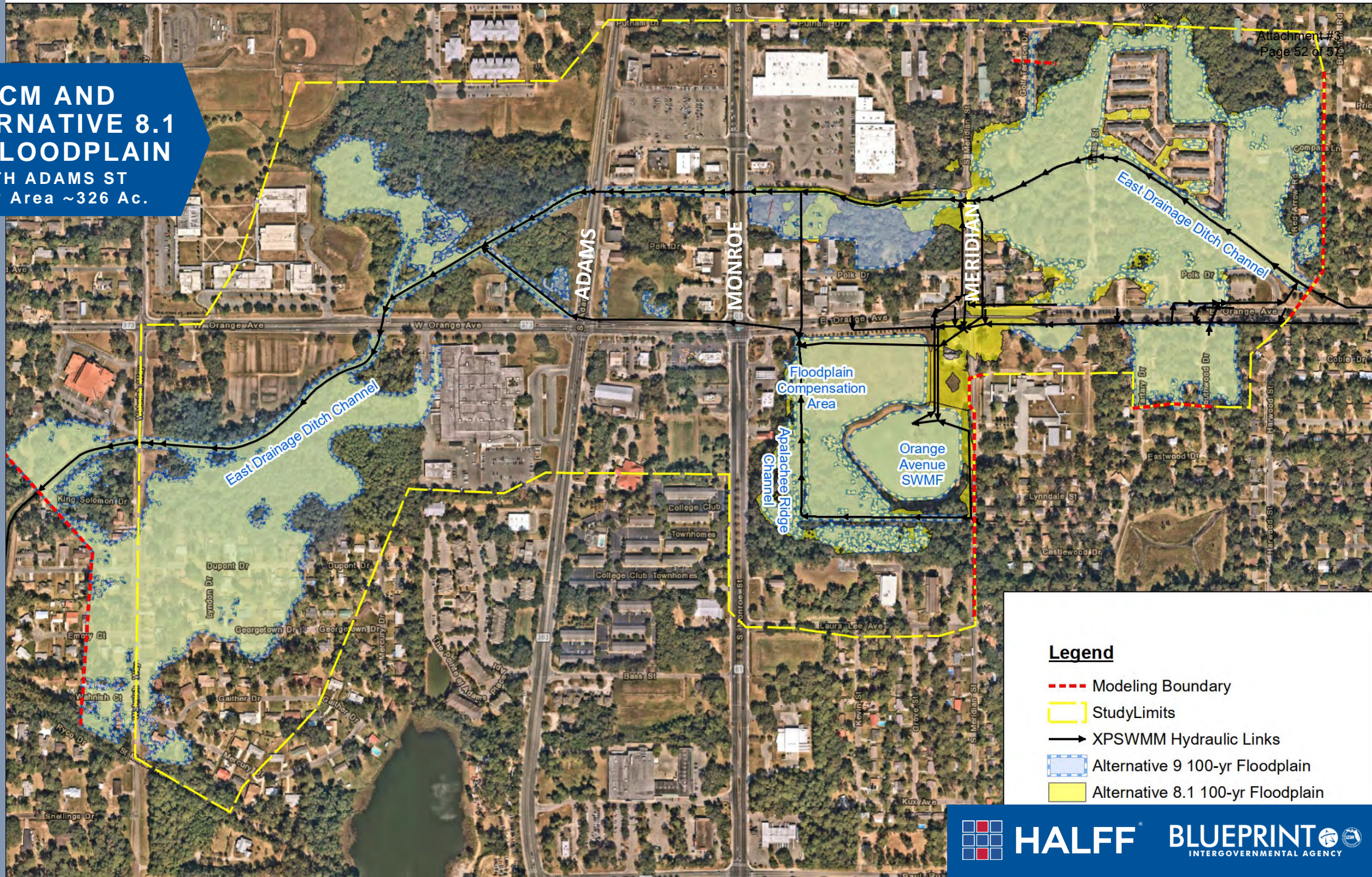


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**ECM AND  
ALTERNATIVE 8.1  
& 9 FLOODPLAIN**  
WITH ADAMS ST  
Study Area ~326 Ac.



**Legend**

- Modeling Boundary
- Study Limits
- XPSWMM Hydraulic Links
- Alternative 9 100-yr Floodplain
- Alternative 8.1 100-yr Floodplain

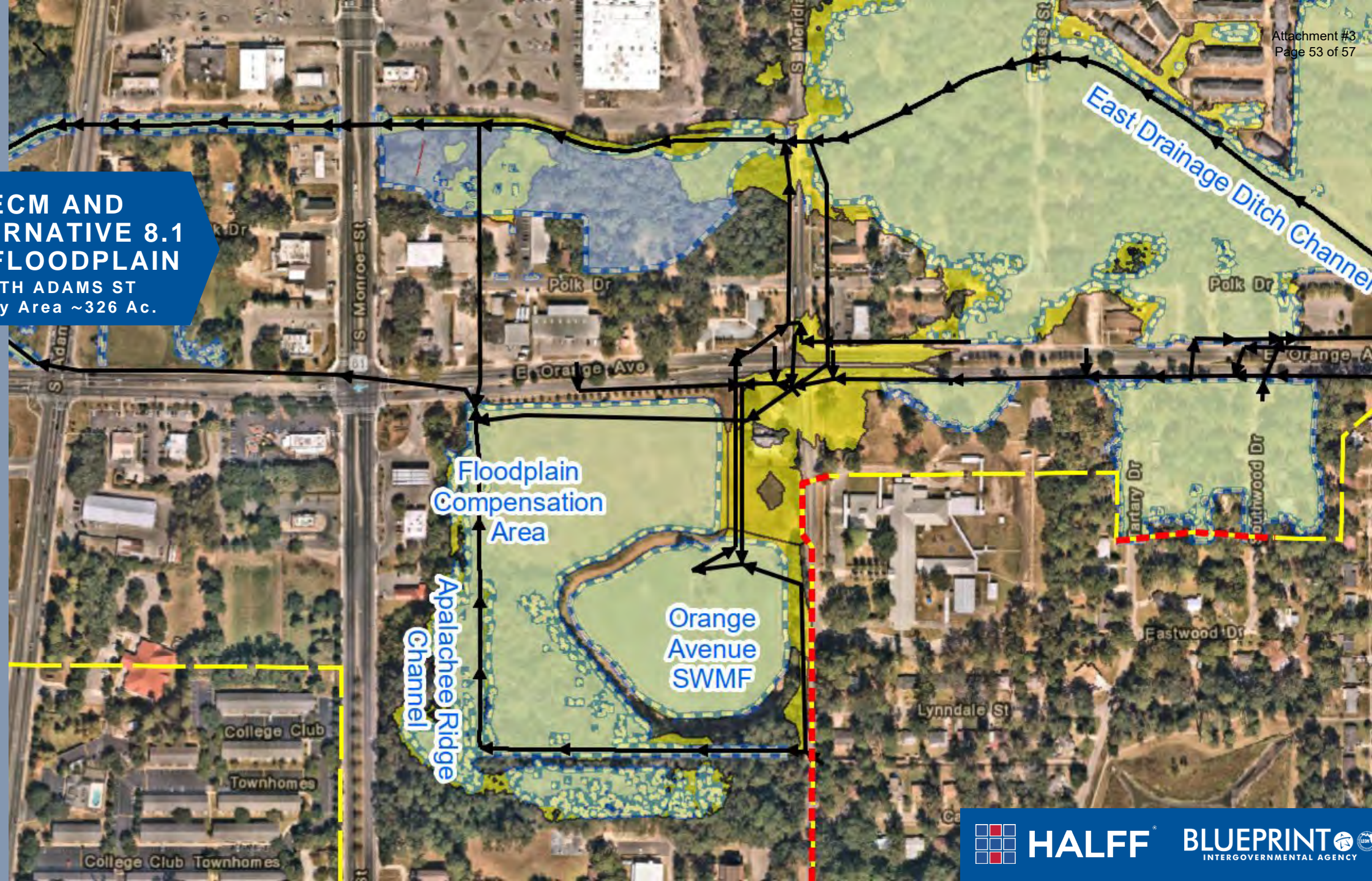


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**BLUEPRINT**  
INTERGOVERNMENTAL AGENCY



**ECM AND  
ALTERNATIVE 8.1  
& 9 FLOODPLAIN**  
WITH ADAMS ST  
Study Area ~326 Ac.





# FEMA PERMITTING APPROACH

1. Complete Existing Conditions H&H Model for the East Ditch Watershed
2. Submit Physical Map Revision (PMR) to FEMA to update FIRM Panels to Existing Conditions  
FEMA PMR Approval timeframe + 6-month Appeal Period – Approximately 16 Months
3. Complete H&H Model for the Selected Preferred Alternative (without Adams Street Improvements)
  - If “No-Rise” can be achieved – Proceed with Design and Local Permitting  
Begin Construction when PMR is Final
  - If “No-Rise” cannot be achieved – Prepare Conditional LOMR (CLOMR)  
An Additional 12-16 months with FEMA will be required if “No-Rise” cannot be achieved





# SCHEDULE

## EAST DITCH IMPROVEMENTS SCHEDULE PROJECT SCHEDULE

April 14, 2023

	2023								2024												2025																		
	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec							
East Ditch Watershed Existing Conditions Modeling	Survey, Modeling, City/County Reviews (10 - 12 months)																																						
FEMA Physical Map Revision (PMR) Permitting												FEMA PMR Submittals & 2 - 90 day Review Periods (10-12 months)												Public Comment Period (6 months)															
Preferred Alternative Design						Preferred Alternative Refinement						Detailed Design & 3 - 30 day Review Periods (9 months)																											
Preferred Alternative "No-Rise" Modeling								Confirmation Modeling as Design Proceeds & Reports																															
Preferred Alternative Permitting (Local, Regional, State)																					Plan Permitting (6 months)																		
Issued for Construction Plans & Bidding Documents																								Final Plans & Bid Docs															
Bidding & Construction (18-24 months)																											Construction Bidding						Construction						



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# East Drainage Ditch - Summary of Findings

1. The Effective FEMA FIRM should be updated to reflect Existing Conditions and must be done to move project forward.
2. Blueprint East Drainage Ditch Project Options
  - Alternate 3.1 could potentially be refined to show a “No-Rise” for the 100-year event compared to the Existing Conditions.
  - Alternate 4 shows a “No-Rise” for the 100-year event compared to Existing Conditions.
  - The alternative projects provide a minimal reduction in the Existing Conditions 100-year floodplain.
3. At the September 7, 2021 TCC meeting, City of Tallahassee Stormwater Division requested Blueprint to analyze the addition of box culverts at Adams Street as this may be completed by the City or FDOT in the future.

## Results:

- Adams Street additional box culverts may provide substantial floodplain reduction east of Adams Street.
- The future Adams Street additional box culverts will require mitigation to address the increased downstream flows to achieve a “No-Rise”.





# ORANGE-MERIDIAN PLACEMAKING

TCC East Ditch Update, April 24, 2023

**BLUEPRINT**  
INTERGOVERNMENTAL AGENCY

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